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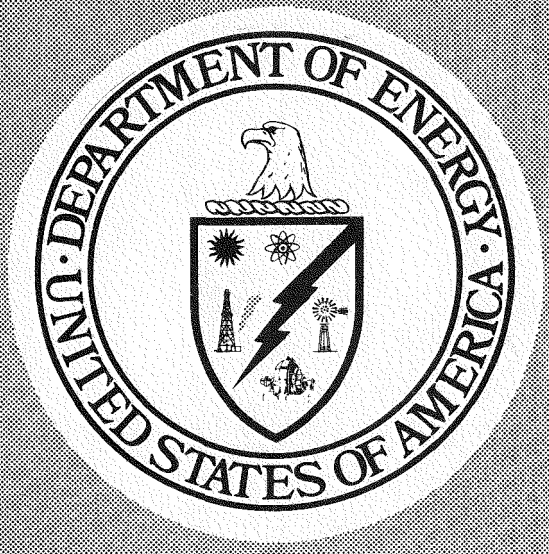

Cost and Schedule Control Systems Criteria for Contract Performance Measurement

Systems Review/Surveillance Guide

U.S. Department of Energy
Assistant Secretary, Management and Administration
Directorate of Administration
Office of Project and Facilities Management
Washington, DC 20585

June 1986

FOREWORD

DOE Order 2250.1B, Cost and Schedule Control Systems Criteria (CSCSC) for Contract Performance Measurement, requires acceptance or validation reviews and surveillance reviews of contractors' management control systems to assure initial and continued compliance with the CSCSC. This document has been prepared to assist DOE personnel in fulfilling their review responsibilities. Reviews consistent with the guidance contained herein will assure that CSCSC objectives are met and that contractor's systems continue to function properly. Contractor compliance with the contract requirements for work definition, integrated cost and schedule control, and performance reporting provide increased assurance that a contractor's progress is sufficiently visible to reliably indicate status and to provide the basis for timely and meaningful management decisions.

This is one of a series of DOE CSCSC guidance documents. Individual guides provide an overview, and detailed guidance on implementation and on contractor reporting and data analysis. Guidance on preparing and using a work breakdown structure is also provided in a separate document.

for C. N. Mitchell, Director
Office of Project and
Facilities Management

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CHAPTER I

INTRODUCTION

A. PURPOSE

When the Department of Energy (DOE) Cost and Schedule Control Systems Criteria (CSCSC) are applied to a contract in accordance with DOE 2250.1B, the contractor's management control systems are reviewed by DOE to determine their initial and continuing compliance with the CSCSC. This CSCSC surveillance begins with the award of the contract, continues through system demonstration/acceptance (phase I), and extends throughout the duration of the contract (phase II) (see Figure 1). Familiarization with the contractor's management control systems should begin during the contract proposal stage. A surveillance plan, detailing how surveillance will be conducted, should be formulated during phase I and fully implemented after systems validation/acceptance. Surveillance of the contractor's systems and review of data emanating from this system is to be accomplished by qualified individuals including the cognizant contracting officer (CCO), cognizant auditor, and project office representatives.

<table>
<tr><td rowspan="2">EVALUATION OF PROPOSALS (PREAWARD)</td><td>IMPLEMENTATION VISIT</td><td>READINESS ASSESSMENT</td><td>DEMONSTRATION REVIEW</td><td>VALIDATION</td><td rowspan="2">SURVEILLANCE PHASE II</td></tr>
<tr><td colspan="4">SURVEILLANCE PHASE I</td></tr>
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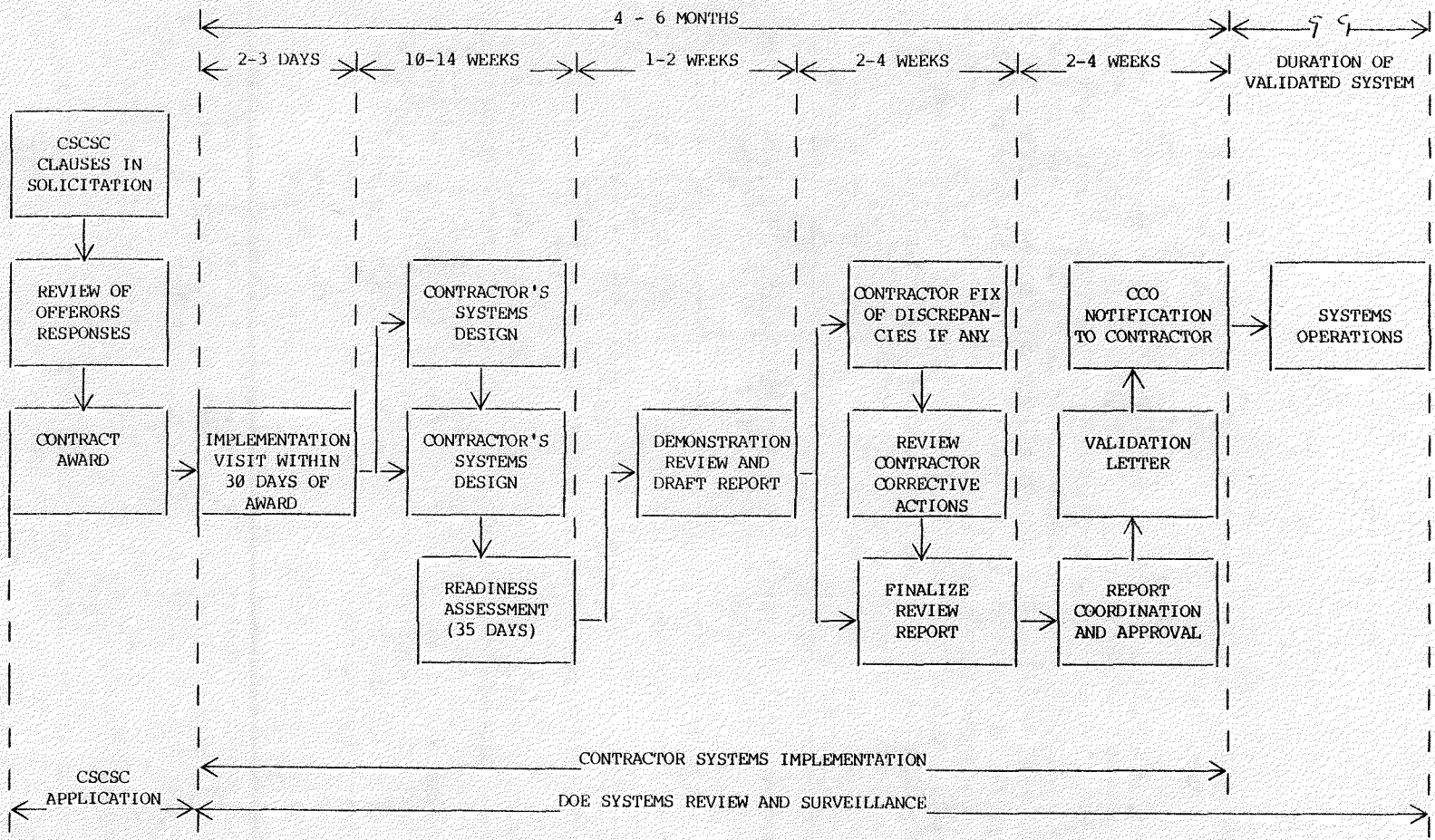
Figure 1. Typical Phases of CSCSC Implementation and Surveillance

DOE performs recurring reviews to evaluate the effectiveness of a contractor's policies and procedures to assure that the contractor's management control systems meet and continue to meet the CSCSC and generate valid data. They base such reviews on recurring evaluation of internal management control practices and selective tests of internal and external reported data during the life of the contract. Figure 2, depicts an application, review, and surveillance sequence of a contractor's implementation of the CSCSC.

This document provides guidance to DOE personnel responsible for applying the CSCSC requirements on contracts, reviewing contractor implementation of the requirements, and surveillance to assure continuing compliance with the CSCSC. Attachment 1 lists relevant reference documents.

B. PARTICIPATING ORGANIZATIONS

CSCSC application requires participation of various DOE organizations, as described in DOE 2250.1B and the CSCSC Implementation Guide. Of these, project management will be the most active, because the project manager has full management responsibility for a project, including application of the CSCSC and compliance with DOE 1332.1A, UNIFORM REPORTING SYSTEM. Other DOE organizations participating prominently in CSCSC application are:



NOTE: The durations may vary considerably based on a number of factors, particularly the initial state of the contractor's management control systems.

Figure 2. CSCSC Full Implementation Schedule

1. The DOE Office of Project and Facilities Management (MA-22) acting as the DOE Focal Point for CSCSC related activities and maintaining liaison with designated CSCSC Focal Points in other DOE organizations (e.g., Procurement) and with other Government agencies.

2. The CCO assigned to a project to administer contractual activities, including those related to CSCSC application for a specific contract.

Other Government agencies involved with energy system acquisition activities may be requested to assist if DOE resources are unavailable. The cognizant auditor, for example, may be a representative of the Defense Contract Audit Agency responsible, at the site involved, for reviews of the contractor's accounting system policies and procedures for compliance with the CSCSC. The DOE project office arranges for cognizant auditor support in accordance with appropriate DOE audit policy.

C. ORGANIZATION OF GUIDE

The remaining chapters of this document describe the procedures used during the CSCSC review process to ensure initially that validated/accepted systems are employed and then that they continue to conform to CSCSC requirements. Chapter II, Systems Reviews, describes the role of the DOE review team in assessing contractors' systems implementation, including the steps undertaken in the review and validation/acceptance process. Chapter III, Planning and Performing Surveillance, provides guidance for DOE offices in the policy and procedures required for monitoring the application of the CSCSC subsequent to validation/acceptance of contractors' systems, and to ensure continuing conformance with CSCSC requirements.

CHAPTER II

SYSTEMS REVIEWS

A. IMPLEMENTATION REVIEWS

The CSCSC requirements are implemented in either a full or a modified version in accordance with the contractual requirements (see Figure 3). Implementation commences with preaward activities followed by post award actions, including an implementation visit, a readiness assessment, a demonstration or acceptance review, and surveillance reviews of validated or accepted systems.

	Full Implementation	Modified Implementation
(1)	Criteria checklist.	Criteria checklist tailored to contract circumstances.
(2)	Work breakdown structure and functional organization integration.	Work breakdown structure and functional integration but functions negotiable.
(3)	Cost and schedule baseline maintenance.	Cost and schedule baseline maintenance.
(4)	Detailed procedures.	Summary procedures.
(5)	Earned value based on work package progress.	Earned value techniques negotiable.
(6)	Element-of-cost planning mandatory.	Element-of-cost planning negotiable.
(7)	Formal reviews required.	Less formal reviews.
(8)	DOE validation.	Project office acceptance.

Figure 3. Distinctions Between Full and Modified Implementation of the CSCSC

1. Preaward Activities

The review sequence begins with an evaluation of proposals prior to contract award. In response to the solicitation containing the CSCSC requirements, offerors submit, in accord with applicable Uniform Reporting System requirements, a management plan depicting their management structure, management processes, contract work breakdown structure, etc., showing how they plan to meet these requirements.

The prospective contractor's management control systems should be presented in sufficient detail to document compliance with the CSCSC. The offerors' systems descriptions are reviewed and evaluated as part of the source evaluation proceedings. The reviewers will use the CSCSC checklist included in Attachment 2, CSCSC Evaluation/Demonstration Review Checklist and Formats.

During the proposal evaluation, participants in the source evaluation process should review the offerors' systems descriptions. They should specifically evaluate proposed contract work breakdown structures (CWBSs) and the offerors' methods for determining and reporting the budgeted cost for work scheduled (BCWS), budgeted cost for work performed (BCWP), the actual cost of work performed (ACWP), the budget at completion (BAC), and estimate at completion (EAC).

If possible, the review director should participate during source evaluation to promote continuity in the systems reviews. The review director should be used as the technical advisor on CSCSC interpretation. Upon completion of the evaluation, the review director should prepare a report for the source evaluation board, that addresses the adequacy of the proposed management control systems and identifies specific deficiencies.

A contractor proposing to use previously validated systems may satisfy the CSCSC requirement in the solicitation by citing in the proposal the Memorandum of Understanding (MOU) with regard to systems operation or the formal notification of systems validation documentation. In such a case, it must be determined whether or not the contractor's systems are still operational and meet the CSCSC. If the contractor's proposed systems are in use under a contract with another DOE or Government component, coordination with the other component should be established and maintained during the evaluation review process. If it becomes necessary to review actual plans and reports of the other component's contract, concurrence of the other component should be obtained. Previously validated management control systems will not be required to undergo a complete CSCSC review cycle on a new contract unless significant modifications have been made to the systems, or DOE has determined that the operational systems no longer meet the CSCSC. In the former case, a subsequent application review will suffice (see paragraph A.4).

Key team members taking part in the review and their area of responsibility should be identified by a memorandum similar to the example referenced in paragraph 2.(b) for a Readiness Assessment Review.

2. Postaward Actions

(a) Implementation Visit

After a contract with the CSCSC requirements has been awarded, the review director and team chief will determine, in conjunction with the contractor, an appropriate date for an initial team visit. This visit provides an early dialogue between members of

the team and the contractor relative to the contractor's systems implementation. The purpose of this visit is to review the contractor's plans for implementing the CSCSC requirements. It should take place as soon as possible after contract award, preferably within 30 days. Prior to the visit, the contractor should be requested to prepare presentations which will reflect systems design and operation and explain internal operation. The visit, normally 2-3 days, should be conducted by key team members, rather than by the entire team. It should consist of identification and clarification of any problem areas or misinterpretations, discussion of the review process, and a review of the contractor's proposed plan for meeting the contractual CSCSC requirements. (See Figure 4). During this visit the contractor should be requested to make presentations to reflect the systems design and operation and explain applicable reports.

The team should examine selected documents and procedures proposed by the contractor. In addition, the contractor should be informed of the types of documents which should be made available for the readiness assessment. Figure 5, lists the types of contractor documentation that may be available for team review and identifies them to one of the CSCSC categories in which they play a major role. A date for the visit to assess the contractor's progress toward satisfying the CSCSC requirements should be set, either during the implementation visit or shortly thereafter.

(b) Readiness Assessment

The readiness assessment is conducted prior to the full-scale demonstration review. It should be short in duration (usually 3 days) and should be performed by key team members. This visit provides an opportunity to review contractor progress toward implementing the CSCSC, to clear-up misunderstandings, and to assess the contractor's readiness to demonstrate fully integrated management control systems. This assessment helps prepare for the demonstration review by familiarizing the key team members with systems documentation and with the fundamentals of systems operation. Figures 6, 7 and 8, show a team assignment letter, a team member assignment list, and a readiness assessment agenda, respectively. They are used by the team chief to identify and prepare team members for the readiness assessment. In this example, the team organization is modified functional (see paragraph II.B.4).

A readiness assessment checklist is included in Attachment A-3, beginning on page A3-1. Any CSCSC discrepancies revealed should be identified to the contractor for correction. Team members should not design or recommend changes to the contractor's systems in order to meet the CSCSC. If numerous deficiencies exist, another readiness assessment should be scheduled. Any additional visits should be made only by personnel who have defined responsibilities in the areas of deficiencies, in order to conserve contractor and DOE resources.

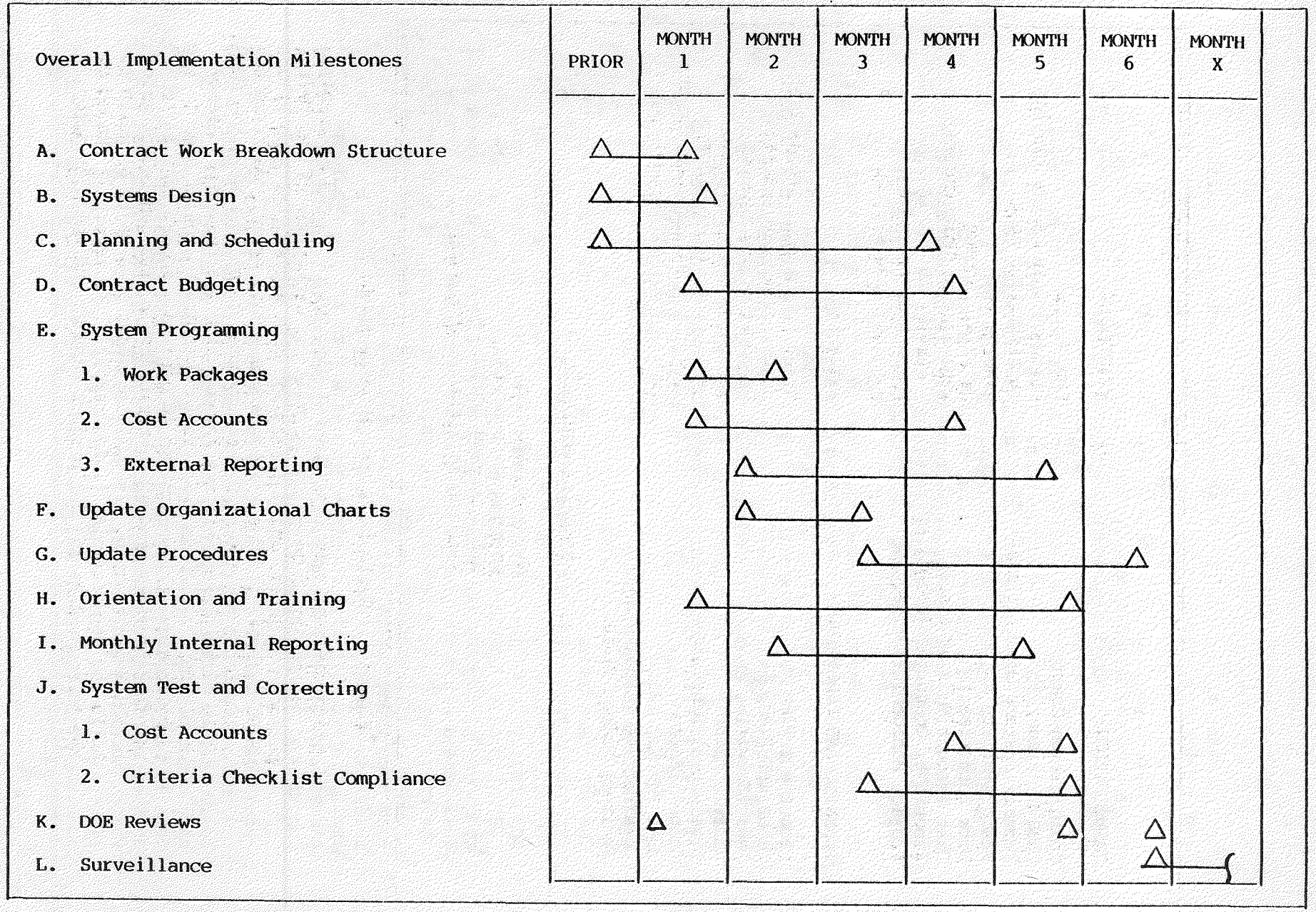


Figure 4. Typical Contractor Full Implementation Schedule

1. ORGANIZATION

Organization Charts
CWBS Dictionary
Summary Systems Descriptions
Responsibility Matrix
Work Authorizations
Cost Account Manager Listing
Functional Operating Procedures
Project Management Procedures

2. PLANNING AND BUDGETING

Management Plan
Other URS Plans
Logic Networks
Master Schedule
Lower Level Schedules
Budget Sheets
Cost Account Plans
Work Package Planning Sheets
Indirect Budget Plans

3. ACCOUNTING

Time Cards
Indirect Cost Center Listing
Specification Logs
Drawing Logs
Material Records
Cost Account/Work Package Statistics
Accounting Procedures
Purchase Requisitions

4. ANALYSIS

Major Procurement Status List
Cost Performance Reports
Schedule Status Reports
Narrative Status Reports
Variance Analysis Reports
Internal WBS/Functional Reports
Indirect Budget Expenditure Reports

5. ACCESS AND REVISIONS

Change Control Log
Management Reserve Log
Undistributed Budget Log
Baseline Maintenance Procedures

Figure 5. Typical Contractor Documentation

During the readiness assessment a team report should be prepared. The report should cover the purpose and background of the review, persons contacted, and a discussion with exhibits of each of the CSCSC categories. These discussions should briefly describe the contractor's management control systems compliance with the CSCSC while highlighting problems found during the readiness assessment. This report provides useful background information to the demonstration review team and is used as a formal vehicle to identify problems needing rectification by the contractor prior to the demonstration. It can also serve as a basis on which to build the demonstration review report. The report is issued by the team chief to the DOE project manager and the contractor.

SAMPLE MEMORANDUM WITH TEAM ASSIGNMENTS FOR
READINESS ASSESSMENT

(DATE)

SUBJECT: CSCSC READINESS ASSESSMENT TEAM ASSIGNMENTS
(Contractor and Location)

TO: (Key Team Members)

Enclosed are the team member assignments [Figure 7] and the agenda [Figure 8] for the (contractor) CSCSC Readiness Assessment scheduled for (inclusive dates).

Each member should thoroughly study the CSCSC and policy, especially in his or her area(s) of responsibility, contained in the DOE Cost and Schedule Control Systems Criteria for Contract Performance Measurement, Implementation Guide. Adequate preparation will contribute to an effective and thorough assessment.

Questions on the Readiness Assessment may be directed to (Team Chief Name).

Figure 6. Team Assignment Memorandum

(c) Demonstration Review

The demonstration review should follow the readiness assessment as soon as practicable. Its duration will depend on the contract value, the scope of work, contractor locations, etc. Normally, demonstration reviews are from 1 to 2 weeks in duration. The purpose of the review is to examine the contractor's systems in operation in order to substantiate CSCSC compliance. For this purpose, the contractor's systems procedures, working papers, and reports should be reviewed and appropriate managers interviewed. The contractor should provide the necessary documentation to facilitate the team's in-depth analysis. The contractor's management control systems description should be current, and applicable operating procedures should be available at the contractor's operating levels. Operating procedures should delineate the responsibilities, limitations on action, and internal authorizations required to perform contract work.

The contractor is responsible for demonstrating to the review team how the management control systems are structured, how they are used in actual operation, and how they comply with the CSCSC.

TEAM MEMBER ASSIGNMENTS

READINESS ASSESSMENT OF

(Contractor)

(Date)

I. Review Director - (Name and Organization) _____

II. Team Chief - (Name and Organization) _____

III. Area of Responsibility

A. Total Project

1. (Name and Organization) _____

B. Contractor Functional Organizations

1. (Name and Organization) _____

C. Scheduling

1. (Name and Organization) _____

D. Accounting

1. (Name and Organization) _____

E. Revisions

1. (Name and Organization) _____

Figure 7. Team Member Assignment List

The review director and team chief are responsible for establishing and explaining the review methodology. The team should use the criteria checklist and formats (Attachment 2) for assistance in completing an orderly, comprehensive, and conclusive review. A summary description of an evaluation of a contractor's system for purposes of initial validation or acceptance is described in Attachment 4. The team should employ sampling techniques, since it may be impractical to review entire areas or interview every manager. Figure 9 shows the typical flow of activities in the review process. This may be modified to accommodate the circumstances of the specific review. Figure 10, shows a typical schedule for the collection and analysis of data and for the preparation of the demonstration review report.

READINESS ASSESSMENT AGENDA

MONDAY:

8:30	Team meeting
9:30	Contractor's briefing
11:00	Determination of contractor personnel (e.g., cost account managers, functional managers, program management representatives) to be interviewed. Set up interviews.
12:00	Lunch
1:00	Familiarization with contractor documentation
4:00	Team meeting to review progress and plan following day activities

TUESDAY:

8:30	Interviews
12:00	Lunch
1:00	Interviews
4:00	Team meeting to review progress and plan following day activities

WEDNESDAY:

8:30	Documentation of findings, drafting report, and preparation to brief contractor
4:00	Brief contractor
5:00	Team departure

Figure 8. Readiness Assessment Agenda

(d) Demonstration Review Report

The demonstration review report is prepared during the review under the guidance of the team chief, who is responsible for its preparation. Team members prepare their sections progressively

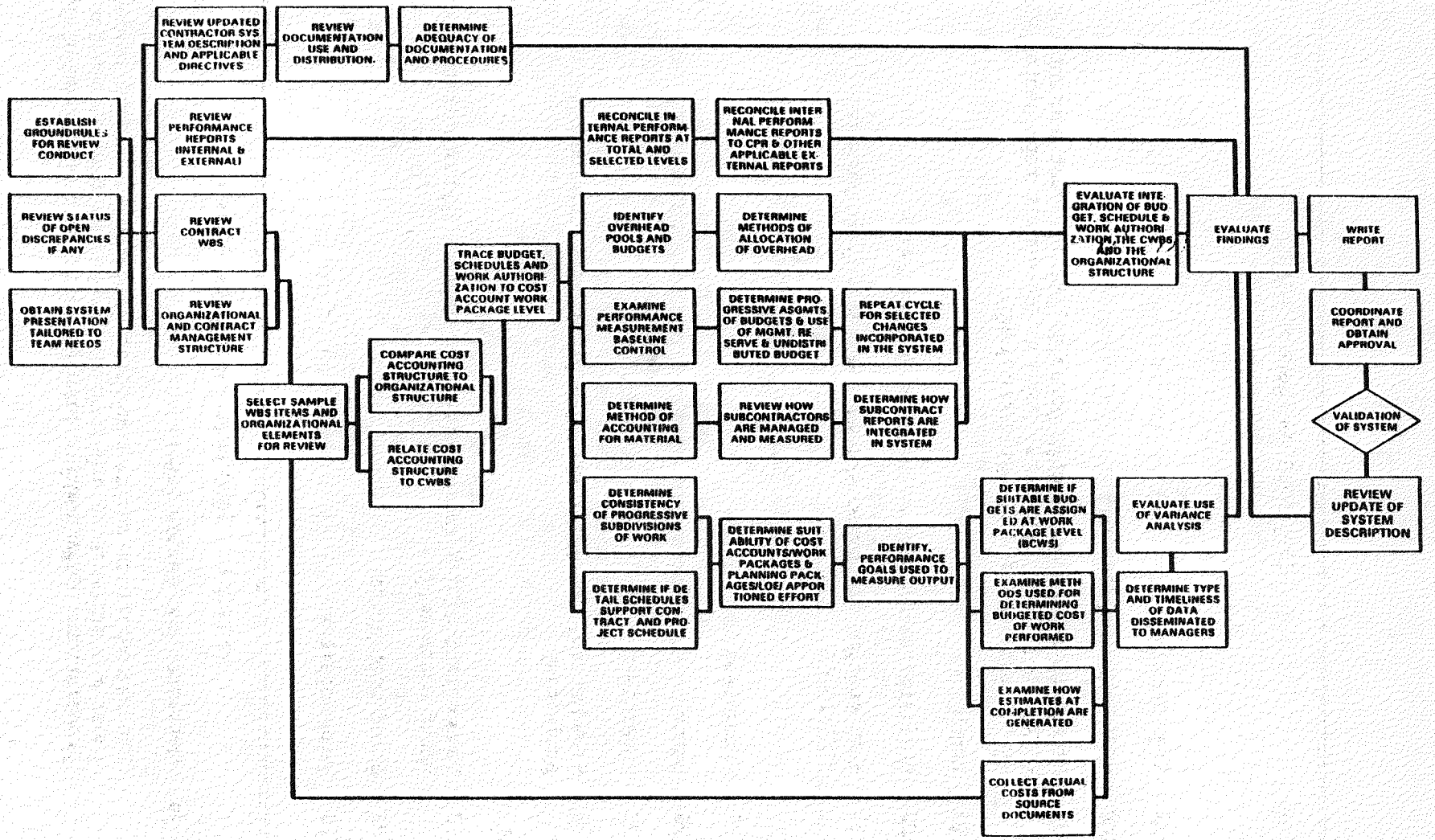


Figure 9. Demonstration Review Process

Day 1	Team meeting Contractor briefing on management control system Site tour Review contractor documentation, determine interviews with cost managers, functional managers and senior management. Set up interviews.
Days 2-6	Team members meet to coordinate day's activities Interviews Team meeting to review progress and document findings.
Days 7-9	Draft individual sections of report Consolidate draft reports, summarize findings, prepare for briefings
Day 10	Meet with DOE/contractor management for briefing Finalize draft report Team departure

Figure 10. Typical CSCSC Demonstration Review Schedule

throughout the course of the review for submission to the team chief, who conciliates or resolves contradictions as the review progresses, ensures that exhibits are complete and style is consistent, and maintains the completed report in a draft status until appropriate corrective actions, if needed, are adopted by the contractor and full compliance is achieved. The final report is then submitted to the review director at the conclusion of the review, or as soon after as is practicable. Attachment 5 discusses the format and content of the report.

The demonstration review report is the basis for validation of the contractor's management control systems by DOE. After project management review, the report will be forwarded to the DOE CSCSC Focal Point for review. Final approval of the report is made by the Office of Project and Facilities Management. If a DOE management visit to the contractor is planned, release of the report to the contractor should not occur until during or after the visit (see paragraph A.3 below).

(e) Corrective Actions

If the contractor's systems or portions thereof are determined not to be in compliance with contractual requirements, corrective actions must be initiated by the contractor. Areas that do not comply, and that must subsequently be re-examined, must be clearly identified to the contractor. A date for review of corrective actions to determine their acceptability, will be agreed upon by

the contractor and review director. This review should be conducted as soon after the demonstration review as possible, considering the time required to complete the required corrective actions. It should concentrate on those areas that were determined to be inadequate during the demonstration review.

(f) Subcontracts

When mutually agreed to by DOE project management and the prime contractor, CSCSC may be applied to selected subcontracts. These subcontracts should be identified in the prime contract. When the CSCSC are applied and the prime contractor reviews and accepts the subcontractor's management control systems, the prime contractor should provide the subcontractor with a written statement documenting the acceptance. Review of a selected subcontractor's management control systems may be performed by DOE in coordination with the prime contractor when requested by either the prime contractor or subcontractor. DOE will follow the same procedures in conducting subcontractor reviews that are used during prime contractor reviews.

3. Validation

After the contractor has successfully demonstrated systems operation, DOE management representatives (e.g., the Director of Project and Facilities Management and the project manager) may visit the contractor's facility. If such a visit is planned, it will precede the formal validation of the contractor's management control systems. It provides an opportunity for the contractor to present an overview of the systems operation, and for responsible DOE management representatives to emphasize the need for contractor management commitment to system maintenance. The review director and team chief plan this visit, coordinating its schedule with involved DOE and contractor participants.

The review director will coordinate preparation of a validation letter with involved DOE activities. The letter should be signed by the field office manager, and should be delivered to the contractor during the above mentioned visit along with a certificate of validation. A sample of such a letter is provided in Figure 11. A sample Certificate of Validation is shown in Figure 12. This letter is not contractually binding. The CCO must officially notify the contractor that, as a result of the review and the subsequent validation letter, the contractor's management control systems comply with the CSCSC provisions set forth in the contract. An MOU, referencing the description of the validated systems, may be executed relative to the application of these systems to other DOE contracts which require compliance with the CSCSC.

Validation of the contractor's management control systems is not intended to inhibit continuing innovations and improvements to the

(DATE)

Corporate Official's Name
Corporate Title
Organization Name
Organization Address

Dear (Corporate Official's Name):

It is my pleasure to inform you that the (Organization) has satisfactorily demonstrated that its management control systems, as described in (insert title of the contractor's Management Control System Description), dated (insert document date), comply with the DOE Cost and Schedule Control Systems Criteria (CSCSC) for Contract Performance Measurement.

(Organization) should continue to operate the systems, as demonstrated, on DOE Contract No. (insert contract number), in order that the systems may be applied to other DOE contracts that include CSCSC requirements. Recognizing that the systems must be dynamic to meet changing business needs, we encourage the development and implementation of innovations and improvements to your systems.

You, your staff, and the personnel of (Organization) are to be congratulated on your achievement of implementing management control systems that meet the DOE CSCSC. I am confident the resulting benefits of this effort will be mutually rewarding.

Sincerely,

DOE Official
DOE Title

Figure 11. Sample Letter of Validation

systems. However, contractors are contractually obligated to maintain the systems in the validated state (see also paragraph IV.A.1). Contractor proposed changes to validated management control systems will be submitted to the CCO as mutually agreed. The contractor should be encouraged to establish a surveillance effort to periodically and systematically review systems operation. Project management, together with other appropriate organizations, should also establish a formal surveillance program, as described in Chapter III. Indications that a contractor's systems are failing to comply with any part of the CSCSC

United States
Department of Energy

Certificate of Validation

Awarded to

having demonstrated its management control systems to the Department of Energy in accordance with the Cost and Schedule Control Systems Criteria in DOE Order 2250.1A.

Assistant Secretary
Management and Administration

Figure 12. Certificate of Validation

can be the specific reason for a project management review and may result in the revocation of systems validation. Discrepancies discovered as a result of surveillance should be corrected immediately or appealed to the DOE CSCSC Focal Point.

4. Subsequent Application Review

(a) Basis

The subsequent application review is the means by which DOE assures that a contractor is using validated management control systems properly on a new or follow-on contract. This review is not as comprehensive as a demonstration review, but it is of equal importance to continued success of DOE's contract performance measurement objectives.

Aside from assuring proper systems implementation on the new contract, the project management group responsible for the new contract can gain greater understanding and insight into the contractor's operations. This familiarity with the contractor's internal systems and reporting procedures will aid in understanding and analyzing the contractor's reports submitted to DOE as contractually required in compliance with DOE Order 1332.1A.

A subsequent application review will be performed when:

- A DOE contractor or subcontractor is contractually required to apply the CSCSC and is using previously validated systems; and
- A DOE contractor proposes to extend the application of the validated systems to organizational elements within the corporate or division structure other than those for which the systems were originally validated.

Project management, in conjunction with the DOE CSCSC Focal Point, will determine the scope and extent of the review, considering such factors as:

- Current and prior experience of other Government agencies requiring CSCSC compliance by the contractor;
- The extent to which major revisions or cumulative revisions have been made to validated systems such that the current systems description varies materially from the originally validated document;
- The extent to which the new contract scope differs from the originally demonstrated contract, e.g., original contract had small material dollar value whereas the new contract includes large material dollar value;

- o The extent to which the new organizational element differs from the one that originally implemented and demonstrated the validated systems; and

- o Assessment of available surveillance records.

(b) Preaward Process

An offeror proposing to apply validated systems may satisfy the CSCSC requirements of the solicitation by citing in the proposal either the formal notice of validation or the MOU by which the contractor agreed to apply the validated systems to subsequent contracts requiring the CSCSC.

When a prospective contractor's proposal indicates the application of validated systems to a pending contract, project management should inform the DOE CSCSC Focal Point. Based upon information available from the contractor's proposals, available surveillance information, and other CSCSC experience with the given contractor, a determination will be made by project management and the DOE CSCSC Focal Point concerning the need for a subsequent application review.

(c) Review Conduct

The review is conducted by project management and DOE representatives identified by the DOE CSCSC Focal Point. The DOE CSCSC Focal Point will coordinate selection of the review director and team chief with the project manager.

The purpose of the subsequent application review is to review the contractor's systems in operation on the new contract to determine whether the systems, with approved changes, have been applied properly. The review should focus particularly on the planning, budgeting, and scheduling of the new contract work; the establishment of the performance measurement baseline; external report generation; and systems discipline (i.e., adherence to procedures, current managers' knowledge of systems operation, accuracy of internal authorization documents, etc.). Personnel of a new project management organization may be involved, giving them the opportunity to learn and understand the contractor's systems and to establish communication channels with key contractor personnel.

After contract award and prior to the review, the team should examine the systems description, the demonstration review report upon which the previous validation was based, and reports, if any, of prior subsequent application reviews.

The subsequent application review is normally conducted within 90 days after contract award. The team size and review duration

should be minimized. Usually, a 3-day visit to the contractor's facility by a small, select team is sufficient. When major discrepancies exist, a follow-on visit will be required to review the corrected areas. In these circumstances, the contractor should provide a corrective action plan and schedule in advance of the return visit.

A concise report covering findings, problems, recommendations, and conclusions will be prepared by the review director; copies will be submitted to the project manager and DOE CSCSC Focal Point. Project management will request the cognizant contracting officer to officially notify the contractor of the subsequent application review results and the corrective actions required, if any.

5. Modified Implementation

Except as noted below, a modified implementation follows the same guidelines as a CSCSC full implementation:

(a) Preaward Activities

If an offeror proposes management control systems used previously on another contract that included modified CSCSC requirements, that contract should be identified. Similarly, if an offeror proposes to use systems previously validated, the contract under which the systems were validated should be cited in the proposal. In either case, a systems description, tailored to the modified implementation requirements, should be a part of the offeror's management plan for the proposed contract. Proposal evaluation follows the same process as for a full implementation of the CSCSC (see paragraph A.1).

(b) Visits/Reviews

Following evaluation of offerors' proposals prior to contract award, and soon after receipt of the first reports, an implementation visit will be made to the selected contractor's facilities. If necessary, a preacceptance review may also be conducted for further observation of the contractor's systems prior to the acceptance review.

Prior to any visit, project management should familiarize the selected representatives with the modified implementation requirements. Following a successful acceptance review, the team will prepare the acceptance review report (Attachment 5) stating that the contractor systems are in compliance with the modified implementation requirements. Project management should then notify the Office of Project and Facilities Management through the cognizant program office, prepare and send the letter of acceptance to the contractor (Figure 13), and request that the CCO notify the contractor that the systems are accepted.

CONTRACTOR PROJECT MANAGER NAME:
CONTRACTOR NAME:
CONTRACTOR ADDRESS:

Dear Contractor Project Manager (Name),

It is my pleasure to inform you of the acceptance of your management control systems by the (insert project's name) project office for the work being done on contract (insert contract number). These systems as described in (insert title of the contractor's Systems Description) dated (insert date) satisfy the (insert project's name) requirements for a modified implementation of the Department of Energy's Cost and Schedule Control Systems Criteria.

It is expected that (insert appropriate contractor designation) will continue to operate the management control systems as accepted for the duration of the contract. Recognizing that opportunities for systems enhancement will occur as experience is gained in their operation, we encourage the development and implementation of innovations and improvements to your systems.

You, your staff, and the personnel of (insert appropriate contractor designation) are to be congratulated on your achievement. I am confident the resulting benefits of the effort will be mutually rewarding.

Sincerely,

(Insert Name of DOE
Project Manager)

(Insert DOE Project Name)

Figure 13. Suggested Format For Letter of Acceptance

(c) Subsequent Application

A contractor's proposal for a contract with modified implementation requirements may include management control systems that have been previously accepted or validated. The contractor would be required to submit a systems description as part of the proposal, and could cite their use on a previous contract. Participants in the source evaluation process will review the systems descriptions, CWBS, and baseline plans based on the particular requirements of the contract under consideration.

Subsequent to contract award and submission of the first reports, a project management team should visit the contractor to clarify DOE understanding of the contractor's systems in operation. Participants in this visit should be from the project office and other DOE organizations with contract performance interests and responsibilities.

Following the visit, a report will be prepared by project management and copies submitted to the project manager and the DOE CSCSC Focal Point. After any required correction action, and any further necessary reviews, project management will request the CCO to notify the contractor that the modified implementation of the CSCSC has been satisfied and will so notify the Office of Project and Facilities Management.

B. REVIEW TEAMS AND MEMBERS

1. Selection Process

Review of the contractor's systems implementation is performed by DOE review teams. These review teams are selected through a coordinated process which is generally led by the appropriate DOE field focal point, but may, as individual circumstances warrant, be led by the DOE CSCSC Focal Point or the project manager. Team members are selected according to their level of expertise in CSCSC and in the specific engineering, technical, or special aspects of the contract undergoing CSCSC review. In most cases, the individual DOE officer who is coordinating the selection of team members will also be the review director. A sample memorandum which may be used to formally establish the full CSCSC review team is provided in Figures 14 and 15. In the example, the DOE CSCSC Focal Point will be the review director.

The number of personnel on the full team review, team member qualifications, and office representation depend on the type of CSCSC implementation, contract value, contract characteristics, project management and field office resources. Team membership should include one or more representatives from project management, the CCO, and the cognizant auditor. At least one representative from each of these offices should be identified as key members, based on demonstrated

(DATE)

SUBJECT: SELECTION OF FULL DOE CSCSC REVIEW TEAM MEMBERS

TO: (Individual Concerned)

You have been selected to be a member of the DOE Cost and Schedule Control Systems Criteria (CSCSC) Review Team for (enter Project Name, Contractor, and Location) in the capacity indicated on the attachment. This memorandum confirms previous coordination with your organization regarding your selection.

This review team has been formed to evaluate (enter Contractor's Name) implementation of the CSCSC requirements under contract number (enter Contract Number). The team will: (1) evaluate the contractor's management control systems and prepare reports and recommendations on the adequacy of the systems in meeting the requirements, and (2) recommend (enter validation or acceptance) or rejection of the contractor's systems. The team will be organized by criteria category.

Team members will meet to perform their duties at the request of the team chief. Team member duties are outlined in the CSCSC Systems Review/ Surveillance Guide.

Details concerning future review activity, such as the dates of your participation, your specific assignments, and administrative matters, will be forthcoming.

DOE CSCSC Focal Point
Office of Project and Facilities
Management, DOE

Figure 14. Sample Memorandum Selecting CSCSC Review Team Members

experience and professional judgement. Reviews prior to the demonstration/acceptance review will normally be conducted by only the key team members. Key team members may be designated as group leaders.

2. Member Qualifications

Normally, team members should have both knowledge of the CSCSC and prior review experience in addition to possessing one or more of the following general qualifications:

- Knowledge of the technical content of the project or contract;

FULL TEAM MEMBER ASSIGNMENTS

FOR (CONTRACTOR NAME AND LOCATION)

I. Review Director - (Name and Organization)

II. Team Chief - (Name and Organization)

III. Team Members by Area of Responsibility

A. Organization

1. _____, Group Leader

2. _____

B. Planning and Budgeting

1. _____, Group Leader

2. _____

C. Accounting

1. _____, Group Leader

2. _____

D. Analysis

1. _____, Group Leader

2. _____

E. Revisions and Access to Data

1. _____, Group Leader

2. _____

Figure 15. Attachment to Team Member Selection Memorandum

- Knowledge of the processes (for example, design, manufacture, construction, etc.) that will be used to produce the contract end item;

- o Knowledge of the principal engineering design and test requirements of the activity under review;
- o General industrial engineering/production control background;
- o Accounting/auditing knowledge;
- o Project planning and control experience;
- o Management analysis/cost/price analysis experience;
- o Contract negotiation or administration experience;
- o Material control/inventory control/logistics experience;
- o Configuration management experience; or
- o Systems engineering experience.

An individual can best achieve specialized training in application of the CSCSC by participation on a review team while working with more experienced team members. The Office of Project and Facilities Management maintains a computerized CSCSC management information system providing lists of CSCSC review activities as well as lists of DOE and contractor personnel engaged in CSCSC applications. Review team personnel profiles are maintained indicating the individual's general experience, formal training in performance measurement and allied areas, and a listing of reviews on which he or she has been a team member. For each review the name of the project, contractor, dates, review type, and area of responsibility are listed. CSCSC focal points and project management are welcome to use this information in structuring experienced teams.

3. Member Training

Successful evaluation of a contractor's management control system is achieved by having a knowledgeable experienced team. It is desirable that members receive specialized training dealing with management concepts and contract performance requirements prior to participation on a team. Several courses are offered by both Government and private industry on understanding management control systems concepts and procedures. Courses in project management including management control systems are offered by the U.S. Department of Energy. The Defense Systems Management College, Fort Belvoir, VA; the Air Force Institute of Technology, Wright Patterson Air Force Base, OH; and the U.S. Army Management Engineering Training Activity, Rock Island, IL; conduct CSCSC training courses for Government and contractor personnel. The DOE CSCSC Focal Point maintains a list of seminars currently offered commercially. This formal training may be supplemented by on the job training to ensure the fullest comprehension of the tasks to be performed.

4. Organization

There are three approaches to organizing the CSCSC review team. Teams can be organized by the CSCSC categories, the contractor's organization or a combination of the two. The most common approach to team organization is to assign each of the five criteria categories to specific groups of one or more team members. Figures 14 and 15 illustrate this approach. Each group reviews the contractor systems documentation and operation throughout the entire contractor organization. They assess and report on contractor organization compliance with the requirements of the assigned category. However, contractor organizations are not structured to accommodate this CSCSC oriented team structure. As a result of the matrixed responsibilities, each team group must review a portion of the system documentation and operation in each contractor functional organization. This approach facilitates report preparation since the report must be structured around the CSCSC. An example of team organization based on the CSCSC categories is shown in Figure 15.

Alternatively, the review team may be structured to parallel the contractor's functional organization. In this case, each team group must review system documentation and operation relative to every one of the CSCSC. Findings of each team group must then be merged to produce a CSCSC structured report. This approach is often modified to assign specific team members to the two CSCSC areas of Accounting and Revisions and Access to Data. An example of team assignments based on such a modified functional approach to a review is shown in Figure 7. The basis for these assignments is the Criteria Checklist as annotated in Attachment 2.

The matrix organization approach with the contractor organized functionally and the review team organized around the elements of a product oriented work breakdown structure (the report structure) often facilitates conduct of the review at minimum cost by reducing the breadth of experience and expertise required of all team members.

5. Duties and Responsibilities

(a) Review Director

The review director is a representative of the DOE CSCSC Focal Point, appointed by the Office of Project and Facilities Management in coordination with the project manager. As the technical advisor to one or more review teams, the director is responsible for assuring that the review of a contractor's management control systems is consistent with DOE policy for CSCSC use and application. The review director will possess a high level of technical competence and responsibility by having completed appropriate training courses and having served as a team chief and/or team member on other reviews. The responsibility for the continuity of planning and direction from contract award through initiation

of surveillance rests with the review director, who also serves as the CSCSC technical advisor during the source evaluation process and as an advisor to the team in field activity. Additionally, the review director has overall responsibility for interpreting CSCSC policy and requirements, for solving problems arising during a review, for maintaining liaison with the DOE CSCSC Focal Point, and for ensuring that the review is accomplished in a professional manner and that the team members conduct themselves at all times in a manner that will reflect credit upon DOE. Detailed duties and responsibilities are listed in Attachment 6.

(b) Team Chief

The project manager, in coordination with the Office of Project and Facilities Management, appoints the team chief as his representative in the review activity. Responsibilities of the team chief include the day-to-day team activities during the evaluation of the contractor's management control systems. The team chief should have completed appropriate training courses and served as a member on one or more review teams. The team chief provides the primary interface between the team and the contractor. Resolution of discrepancies is the team chief's responsibility. Duties and responsibilities of the team chief include organizing the team, arranging team logistics and facility access, planning, monitoring, and controlling interviews and other activities, and keeping the contractor informed on review progress and results, including discrepancies. Detailed duties are listed in Attachment 7.

(c) Team Members

Individual team members are responsible to the team chief for a detailed evaluation of the contractor's management control systems within their assigned area. Their responsibilities are listed in Attachment 8.

(d) Key Team Members

In some cases, a key team member may be assigned additional responsibilities as leader of a group. In this capacity, the team member directs the group effort and performs as an interface between the team chief and the group. This arrangement takes advantage of the member's expertise and minimizes the administrative load on the team chief.

C. REVIEW OF SUBCONTRACTOR'S SYSTEMS

Subcontracts, excluding those that are firm-fixed-price, may be selected for CSCSC application by mutual agreement between the prime contractor and

the project manager on the basis of dollar value and/or criticality of the subcontract. Subcontracts selected should be identified in the prime contract.

1. Responsibility

When a subcontractor is contractually required by the prime contractor to comply with the CSCSC, review of the subcontractor's management control systems is the responsibility of the prime contractor, as a part of subcontract management. The DOE function normally is limited to evaluating the effectiveness of the prime contractor's management of the subcontract. However, there may be occasions when a prime contractor will request DOE assistance to perform or assist in performing limited or complete CSCSC review activity.

2. Conditions

The CCO should make arrangements to provide such review assistance only when it would be in the best interest of DOE to perform this prime contractor responsibility. Generally, such assistance should be provided only when:

- The prime contractor is unable to accomplish the required reviews because it would jeopardize the subcontractor's competitive position or when proprietary data are involved; or
- The business relationship between the prime contractor and subcontractor is not conducive to independence and objectivity, as in the case of parent-subsidiary companies, or when prime and subcontracting roles of the companies may, at times, be reversed; or
- The subcontractor is sole source and the subcontract costs represent a substantial part of the prime contractor costs.

D. SURVEILLANCE REVIEWS

Surveillance of the operation of the contractor's management control systems continues after validation or acceptance. Surveillance may include formal reviews. A formal surveillance review is conducted in much the same manner as a review preceding validation/acceptance, except that it may focus on selected areas, and may therefore require only a limited review team. Planning for surveillance reviews is discussed in more detail in Chapter III.

CHAPTER III

PLANNING AND PERFORMING SURVEILLANCE

A. OBJECTIVES OF SURVEILLANCE

The objectives of CSCSC surveillance are:

1. To ensure that the contractor's management control systems continue to:

   (a) Provide valid and timely management information.

   (b) Comply with the DOE CSCSC.

   (c) Provide timely indications of actual or potential problems.

   (d) Provide baseline integrity.

2. To ensure that the contractor's required external cost, schedule and performance reports:

   (a) Contain information that is derived from the same data base as that used by the contractor's management.

   (b) Contain explicit and comprehensive variance analyses including proposed corrective actions in regard to cost, schedule, technical and other problem areas.

   (c) Contain information that depicts actual conditions.

B. SCOPE OF SURVEILLANCE

CSCSC surveillance consists of the following activities:

1. Understanding the contractor's management control systems.

2. Monitoring the contractor's implementation of the management control systems on the applicable contract.

3. Monitoring throughout the life of the contract the continuity, consistency, reliability, and effectiveness of the systems in operation. This activity includes the following:

   (a) Assuring that the validated/accepted systems are in fact being used in the management of the project.

   (b) Evaluating changes to the validated/accepted systems to ensure continuing compliance with the CSCSC.

   (c) Conducting periodic systems reviews, evaluations, and testing to ensure that the quality of the management control systems is maintained.

(d) Informing the contractor of any uncorrected deficiencies which affect overall acceptability of the contractor's management control systems, and requesting that corrective actions be initiated.

(e) Providing reports to the CCO, cognizant auditor and project management as outlined in the surveillance plan.

4. Assuring that contractor internal and external reports identify current and potential problems.

5. Reviewing, evaluating, and processing external contractor performance measurement reports.

6. Monitoring the contractor's corrective actions required as a result of CSCSC surveillance.

7. Coordinating appeals concerning discrepancies to the DOE CSCSC Focal Point if the contractor disputes recommended corrections of deficiencies.

C. PLANNING FOR SURVEILLANCE

Familiarization with the contractor's systems and planning for their surveillance begins prior to the award of a contract containing the CSCSC requirement. Initial reviews ensure that the contractor's implementation of the management control systems proceeds satisfactorily to validation or acceptance, and highlight any obvious systems deficiencies. After systems validation or acceptance, systems surveillance assures that the systems are being operated reliably and effectively throughout the life of the contract. Planning will ensure that a rational, efficient and effective approach will be used for monitoring the contractor's implementation of the CSCSC.

1. Surveillance Plan Description

The main purpose of the surveillance plan is to provide an organized set of guidelines for use in performing CSCSC surveillance. Primary considerations in the preparation of the surveillance plan are the specific systems to be monitored, the requirements of the project manager, and the availability of personnel.

The surveillance plan should describe the purpose and objective of surveillance, provide a list of reference documents, and identify required recordkeeping and reporting. It should define organizational and individual responsibilities, and provide general procedures for planning and conducting surveillance. It should provide detailed procedures tailored to the contractor's systems, addressing each subsystem or surveillance area. The plan should not be so rigid as to result in routine mechanical surveillance. Instead it should be

flexible and require periodic reevaluations to determine redirection of emphasis necessary to meet changing conditions. It should provide for adjustment in effort and shift of emphasis as the contract progresses. The plan should indicate the auditor's responsibility to review the contractor's financial management systems and perform other surveillance activities.

A surveillance plan is prepared by the project office and should be implemented as soon as possible. A suggested outline for a surveillance plan is provided in Attachment 9.

2. Developing the Surveillance Plan

Development of the surveillance plan is the responsibility of the DOE project office. Discussions of the plan should be held with the contractor and, if the CCO has no objection, a copy of the plan may be provided to the contractor. The plan should be submitted to the project manager, the cognizant auditor and the CCO for concurrence and should be implemented as soon as possible after the demonstration/ acceptance review. The following should be considered in developing the plan:

(a) Contractor Management Control Systems

A detailed knowledge of the contractor's management control systems, including relevant policies and procedures, is the necessary starting point in the development of an effective surveillance plan. Specifically, interrelationships, dependencies, and control points must be understood. The contractor's systems description provides the basis for such understanding.

(b) Demonstration or Acceptance Review Report

The demonstration or acceptance review report is an excellent source of information concerning how and under what conditions the contractor's management control systems were validated or accepted. The report presents a summary of the overall condition of the contractor's systems and highlights areas requiring surveillance emphasis at the review completion. The report can assist in preparation of the surveillance plan.

(c) Project Manager Requirements

The surveillance plan should support the project manager's requirements with regard to systems operation. Project office representatives should establish a mutual understanding as to their functional responsibilities, and the surveillance plan should be written, or amended as necessary, to satisfy these requirements.

(d) Reports and Other Documents

The schedule, labor, cost, performance measurement, and technical reports generated by the contractor in carrying out contract performance should be considered as additional sources of information.

(e) Available Resources

In developing the surveillance plan, the project office should consider the responsibilities requiring fulfillment, and the expertise, capabilities, and resources available for their fulfillment. The number of people and the functional expertise required will vary based on the scope of the contract, the number of contractor operating locations, and level of risk.

(f) Flexibility

The surveillance plan should be flexible to allow for change in emphasis as the contract progresses, for response to special requests, and for investigation of problem areas. Systems surveillance and discipline should be emphasized at the outset.

Flexible planning should provide assurance that the systems work properly, that the contractor uses the systems to manage the contract, and that no deviations not approved by DOE are being made by contractor personnel. Once this is accomplished, emphasis may focus on problem areas, variances, EACs, and data traceability and analysis in consonance with the project manager's requirements.

(g) References

Primary references used in the development of the surveillance plan are:

(1) This CSCSC Systems Review/Surveillance Guide;

(2) The CSCSC Implementation Guide;

(3) The Contractor's Management Control Systems Description;

(4) The Demonstration/Acceptance Review Report; and

(5) Sample surveillance plans.

D. RESPONSIBILITIES FOR SURVEILLANCE

CSCSC surveillance requires participation and full cooperation of the project office and the contractor. If surveillance is to be conducted successfully, a spirit of mutual cooperation and proper rapport must exist among all interested parties in their interactions. Each person involved in surveillance should have an understanding of the intended evaluation

methods of the other surveillance personnel. Coordination, periodic discussions, and the exchange of ideas between all surveillance personnel is encouraged to avoid duplication of effort. Discussion of the responsibilities of participants in the surveillance function follows:

1. CSCSC Surveillance Monitor

The surveillance monitor has lead responsibility for surveillance of the contractors systems. The surveillance monitor should be selected on the basis of background and knowledge. The surveillance monitor should be familiar with the contractor's management control systems, and should possess the ability to relate contract and project performance. He or she should assure that the data presented by the contractor are valid, timely, and consistent with the contractor's internal data. When possible, the surveillance monitor should have participated in the systems demonstration/acceptance review.

The responsibilities of the surveillance monitor include, but are not limited to:

- Assuring project office coordination with the CCO, cognizant auditor, and contractor representatives in the preparation of the surveillance plan to assure that the surveillance is performed in a systematic manner;
- Developing and executing the CSCSC surveillance plan to assure continuity and consistency in the operation of the contractor's systems;
- Evaluating the effectiveness of the contractor's policies and procedures, including their capability to allow for contract revisions and yet maintain baseline integrity;
- Selectively testing the contractor's cost and schedule data flow and external performance measurement reports to determine validity of reported data;
- Assuring that the cost performance reports and other Uniform Reporting System (URS) reports submitted to the project office are timely and accurate;
- Evaluating cost and schedule performance variances that exceed the thresholds established in the contractor's management control systems;
- Reviewing the application of management reserve budget and bringing to the attention of the project manager and the CCO any improper use or early depletion of a major portion of the management reserve budget;

- Assuring accurate and adequate files are maintained relative to CSCSC surveillance;

- Acting as the point of contact in matters relative to CSCSC surveillance within the project office;

- Assuring that the CCO, cognizant auditor, and project manager are fully advised of the status of CSCSC surveillance and any major problems pertaining thereto;

- Assuring that the contractor's method of estimating cost at completion is uniform and that causes for revised EACs and their impact on the contract are properly explained; and

- Preparing and submitting reports in accordance with the surveillance plan.

The CSCSC surveillance monitor should meet with appropriate personnel to discuss items of interest and concern from prior review and surveillance efforts and to plan the future effort. The surveillance monitor will determine the scope, depth, and areas of surveillance activities for any subsequent review. The contractor's systems should be examined at least once during each 12-month period. This will require evaluating all the important features and disciplines of the contractor's systems, performing this evaluation in each major functional group of the contractor's project organization, and performing this evaluation in the most active areas of the CWBS. Specific actions will be assigned to individual personnel as may be required in preparation for the surveillance effort.

2. The Cognizant Contracting Officer

The CCO is the individual designated as the agent of the Government responsible for assuring that the provisions of the contract are complied with. As such, he or she must be kept apprised of the cost, schedule, and technical performance, as well as compliance with CSCSC and URS provisions of the contract. Specifically, the CCO is responsible for providing assistance in systems reviews and continued systems surveillance thereafter.

Application of the CSCSC aids effective contract administration and decisionmaking. For example, the monthly cost performance report shows the cost and schedule status of the contract and highlights significant cost and schedule variances and their probable causes. The cost performance report data quantify the magnitude of existing and potential problems and indicate cost and schedule trends for estimating contract completion costs.

The responsibilities of the CCO include, but are not limited to:

- Forwarding to the cognizant auditor a list of all CSCSC reports specified in the contract data requirements list which require audit verification of financial data;

- o Reviewing contract costs and financial data;

- o Evaluating the effectiveness of the contractor's change control procedures and the method of controlling management reserve budget and undistributed budget; and

- o Assuring that the contractor explains all significant cost and schedule variances (i.e., those exceeding established thresholds), that the explanations are valid, and that proposed corrective actions are feasible and reasonable.

3. Cognizant Auditor

The cognizant auditor is responsible for reviewing the contractor's accounting systems, policies, and procedures and the financial data contained in various reports, and for evaluating the effectiveness of the contractor's financial policies and procedures. Each of these areas, as well as others, are routinely reviewed as they affect all Government contracts, whether or not they contain a CSCSC requirement. Financial and cost audit policy is accomplished in full coordination with the CCO through reviewing the contractor's operation in its totality. All activities which either contribute to, or have an impact on, proposed or incurred costs of Government contracts are identified and evaluated. Information reported to the surveillance monitor may be derived from any aspect of the audit review.

The cognizant auditor normally has the following responsibilities:

- o Reviewing the contractor's accounting system for compliance with the CSCSC and contract provisions, including verification that there is consistency with related budgeting and work authorization systems;

- o Determining the accuracy and reliability of the financial data contained in the cost management reports prepared from the contractor's systems;

- o Providing for the recurring evaluation of the effectiveness of the contractor's accounting policies and procedures, and using selective tests for the validity of reported data;

- o Reporting any significant unresolved deficiencies to project management;

- o Incorporating the agreed to CSCSC surveillance procedures into routine audits;

- o Advising the surveillance monitor regarding surveys of the operation of contractor financial and cost management systems, as well as other audits which concern systems operation;

- o Verifying that cost accumulation and distribution practices comply with appropriate DOE formal requirements and generally accepted accounting practices;

- o Verifying that material costs are recorded in accordance with the validated or accepted management control systems; and

- o Analyzing indirect cost control through evaluation of policies, procedures, and data and advising the project manager and CCO of the findings.

E. PERFORMING SURVEILLANCE

1. Prior to Systems Validation or Acceptance

DOE contract administration, including CSCSC surveillance, begins with contract award to assure that the provisions of the contract are being met. The project management personnel involved, as well as any on-site Government personnel, should become familiar with the contractor's management control systems and monitor their implementation. The examination of the systems and their outputs should emphasize analysis of the systems' characteristics and identification of features not meeting the CSCSC.

2. After Systems Validation or Acceptance

(a) Scope and Frequency of Reviews

Surveillance should not become so involved in detail as to lose sight of the overall purpose of management control systems, which is to provide timely, accurate data to both contractor and DOE management personnel to aid in making decisions. The scope and frequency of surveillance is dependent upon several circumstances including the extent of the contractor's internal systems surveillance, the contract value and duration remaining, prior surveillance experience, the extent of risk, and the number of major contract changes.

In order to maximize the visibility and the return for effort expended, it is necessary to be aware of anticipated contract activity. The surveillance monitor should base the planned surveillance schedule on areas with the highest anticipated rate of activity or those with serious problems.

Surveillance should be planned on an annual or more frequent cyclical basis to ensure thorough coverage of the major CSCSC categories and systems discipline. Cost accounts in each major functional area should be reviewed in depth to assess the adequacy of integration of all systems at the cost account level. Surveillance of systems areas where major problems exist or are suspected will necessarily be on an individual basis, and should

focus on whether or not the contractor has properly identified the problem and its cause(s), correctly assessed the impact of the problem, and addressed the pertinent issue(s) in the proposed corrective action(s).

(b) Resolved Issues

Resolved issues should be reopened only if it is believed that performance measurement is being significantly distorted. To avoid reopening resolved issues to the extent possible, consideration should be given to the information available in reports and files pertaining to systems validation or acceptance.

(c) When a subcontractor is contractually required by the prime contractor to comply with the CSCSC, surveillance is a basic responsibility of the prime contractor to perform as part of the total management of the subcontract. The CCO function normally is limited to evaluating the effectiveness of the prime contractors subcontract management. However, there may be occasions when a prime contractor will request DOE assistance to perform or assist in performing limited or complete CSCSC surveillance. Such support administration is not to be construed as a discharge of the prime contractor's contractual obligations and basic responsibilities to manage the subcontract. Normally, if DOE has assumed total or partial responsibility for CSCSC review of the subcontractor's systems, this responsibility would continue during surveillance (see paragraph II.D).

(d) General Approach

During surveillance of the contractor's management control systems, the following functions should be performed:

(1) Evaluation of the Management Control Systems

Review the contractor's practices to assure they are in consonance with the validated or accepted systems description and to determine if management utilization of systems and data is appropriate. In the course of surveillance, the team should be continually alert to contractor practices, procedures, and systems that do not meet the CSCSC.

In addition, the surveillance team should always be concerned that the systems descriptions accurately describe the systems and should be vigilant for any deviations from the systems described. Such deviations should be brought to the immediate attention of the contractor and resolved in accordance with the procedures in paragraph IV.C.2.

Since each contractor's management control systems are unique and must be evaluated according to the existing situations,

contract requirements, etc., general surveillance techniques have been provided in Attachment 9 to be used in evaluating the adequacy of the management control systems in operation.

(2) Evaluation of System Changes

The surveillance monitor must be made aware of all changes to the contractor's systems. Proposed changes should be evaluated for compliance with the CSCSC, impact on the integrity of the systems, affect on contractual provisions, and the cost and benefit of implementation. They should be evaluated to determine their acceptability and to allow for rapid implementation, if approved. The purpose is to approve those changes which are in compliance with the CSCSC and which may improve contract visibility in a cost effective manner. Approved changes should be incorporated into systems descriptions and actual practice in an expeditious manner.

Changes to management control systems may affect many areas. For example, format changes, modification of methods and standards, computer program changes, and changes in budget priority could affect the reliability of data inputs and outputs. In addition, changes in BCWP calculation methods, variance analysis thresholds, and EAC updates could affect the results of contractor variance analysis. Such changes could directly affect the data on which management decisions are made.

(3) Verification of the Data Base and of Systems Discipline

The validity and traceability of the contractor's cost and schedule data flow should be evaluated. By comparing the cost performance reports with other appropriate internal and external reports, it is possible to ascertain the accuracy of the contractor's data base and the discipline of both the contractor's management personnel and the management control systems involved. In addition, by tracing the cost and schedule data flow, the surveillance team can determine whether all applicable subsystems related to cost, schedule, and technical control are integrated and use the same data source.

(4) Verification and Reconciliation of Data

Contractor reconciliations of appropriate cost data should be verified periodically to assure that data presented in various external reports and documents are valid, reconcilable, and traceable to other external reports and to the internal data base. Differences isolated in the data must

be explained. The mechanics of the contractor's procedures for reconciling data should be reviewed in the early stages of surveillance. After obtaining assurance that reliable procedures are consistently followed, such verifications should be required less frequently. The depth, intensity, and frequency of reconciliations will be influenced by such factors as the relative importance of the data, past reliability of contractor reports, the degree of stability or change existing in the contractor's organization and past surveillance experience.

F. SURVEILLANCE RECORDS AND REPORTS

1. Records

The project manager will assure that the surveillance efforts are documented and maintained as part of a chronological record of the contract. A surveillance file will be established to contain all pertinent data and information regarding surveillance. The file should include areas reviewed, findings, actions taken, and results.

A chart of the type shown in Figure 16, may be prepared and maintained by the surveillance monitor. Use of this chart will provide a historical summary which gives an overview as to which surveillance areas were reviewed in various functional areas of the contractor's organization. Reviews of such summaries should be undertaken periodically to ascertain that the proper areas of surveillance are being emphasized and that no surveillance areas or functional elements are being either unduly neglected or overemphasized.

2. Reports

The surveillance plan should identify all desired surveillance reports, their distribution, and general contents. Normally, these reports should be limited to periodic descriptions of surveillance activity and evaluation of appropriate contractor reports. However, provisions for any special reports, such as problem analysis reports, may also be included. CSCSC surveillance reports should be forwarded to the Office of Project and Facilities Management and the cognizant auditor. Additional distribution, such as to the contractor, should be listed in the surveillance plan.

The CSCSC surveillance monitor should prepare the report documenting surveillance activities and results. The overall report should include an intact copy of appropriate reports from the cognizant auditor which contain reported deficiencies or recommendations pertaining to CSCSC surveillance. Significant findings or observations made by the surveillance monitor will be forwarded to the project manager for information, guidance, or action. Sufficient samples of significant data items should be evaluated to assure that contractor-prepared data are timely and accurate and that they reflect actual conditions.

CSCSC SURVEILLANCE SUMMARY REPORT

Contractor_____ Review Date_____ Monitor_____

Functional Organization Element / Area of Surveillance						
Organization						
Planning and Budgeting						
Accounting						
Reports/Analysis						
Revisions and Access to Data						
Indirect Costs						
System Discipline						

Figure 16. Suggested Format for CSCSC Surveillance Summary Checklist

Surveillance reports should provide clear statements of the scope of their review and any deficiencies noted, together with recommendations for their correction. Comments should also be provided regarding the results of discussions with the contractor's representatives on deficiencies disclosed. The report should be forwarded to the CCO and the project manager with sufficient copies for further distribution. To ensure that all pertinent data have been considered, the audit findings and recommendations should be discussed with the CCO and the project manager and, when appropriate, with the contractor prior to issuance of the report.

CHAPTER IV

RELATED METHODS AND PROCEDURES

A. SYSTEMS DISCIPLINE

1. Responsibilities

The prime responsibility for maintaining systems discipline rests with the contractor. Contractor personnel must assure that the management control systems continue to function as validated or accepted and that any changes or deviations in those systems are properly documented and processed (see also paragraph IV.C.2). The degree of contractor surveillance activity will have a direct bearing on the intensity of the Government surveillance effort. The adequacy of the contractor's system discipline is one of the important areas to be evaluated by Government review teams and surveillance personnel. By performing the various reconciliations, analyses, and traceability tests described in this document, the contractor and DOE should be able to determine whether:

- o The contractor's systems have integrity and reliability;
- o Management uses and relies on the systems; and
- o The contractor's systems are properly controlled, and resulting data are properly employed by appropriate levels of management.

2. Problem Investigation

One of the primary purposes of the CSCSC is to increase visibility into the status of a contractor's progress. This gives management, both DOE and contractor, early recognition of current problems so that corrective action may be taken before these problems severely impact cost, schedule, and/or technical performance. At the first indication that such problems exist, the area should be investigated in detail to determine whether a systems problem or actual performance is involved.

If the problem is inherent in the contractor's management control systems, necessary corrections should be requested and their implementation should be monitored during surveillance. Performance problems should be promptly brought to the attention of the project manager.

Detailed explanation of the calculation and analysis of a variety of status indicators is provided in the DOE CSCSC Contractor Reporting/ Data Analysis Guide.

3. Discrepancy Tracing

Discrepancies discovered during DOE or contractors reviews or surveillance should be traced to their source for correction. Discrepancies may be caused by:

- o Mathematical inaccuracies;
- o Management control systems deficiencies which prevent reconciliation or permit the same data to be accumulated from two or more separate sources;
- o Personnel not properly trained or experienced in the use of the management control systems;
- o Failure to take necessary management actions; or
- o Lack of internal control.

The problems resulting from these deficiencies should be brought to the attention of appropriate contractor personnel for prompt resolution.

B. USE OF SAMPLING

1. General

During systems reviews and surveillance, it will almost certainly be impossible to review all of the typical contractor documentation shown on Figure 5 for all WBS elements and all organization elements for all five CSCSC categories for one reporting period, and to interview all organization managers, during the scheduled review/surveillance period. However, a high level of confidence in the integrity of the review findings can be maintained within the constraints of the review team resources through the judicious use of sampling procedures. For example, only a selected sample of cost account managers need be interviewed, and only a selected sample of cost accounts need be reviewed for data integrity. A cost/benefit analysis to select the sample size based on mathematical probability theory is generally impractical. Clearly, reviews of only one element at each level of the CWBS and interviews with only one manager at each level of the organization is inadequate, while review of all WBS elements and interviewing all contractor managers requires resources in excess of those available. Although simple statistical techniques may aid in the selection of data and interviewees, an experienced team chief can best judge the optimal scope for the review.

2. Sample Selection

In selecting areas to be reviewed, the review teams/surveillance personnel should give due consideration to the critical areas of the contract. Cost accounts normally should be selected from those areas that are weak or suspect or have a high risk or high dollar value based on analysis of the cost performance report and related URS reports. Critical areas include but are not limited to:

- o Areas that directly affect contract milestones; e.g., WBS elements and organization elements with activities on the critical path;

- o Areas associated with high technical risk or high dollar amounts; e.g., cost accounts employing new welding techniques;

- o Areas that may be affected by large or critical subcontracts; e.g., WBS elements and sole source suppliers;

- o Areas that have shown out-of-tolerance performance to date, either favorable or unfavorable; e.g., functional areas such as design engineering; and

- o Areas which have undergone an unusual amount of contractual change based on the number of change orders or application of management reserve; e.g., WBS elements dependent on a new technology.

- o Areas which are undergoing a great deal of activity because of the phase the project is in; e.g., design engineering during the design phase.

3. Technique and Sample Size

Relatively simple statistical techniques for random sample selection may be used to identify transaction data source documents to verify correct logging procedures or to select interviewees, for example. Simple statistical techniques also exist for determining the number of transactions that should be verified to ensure a specified confidence level or that the process error rate falls within a specified range. When a stable process error rate is already known to exist, other statistical sampling techniques can be used to determine the sample size/confidence level tradeoff. These techniques are beyond the scope of this document but may be found in most textbooks on statistics and in many audit textbooks.

C. CHANGES, DEVIATIONS, AND WITHDRAWALS

After each review, the contractor corrects any identified systems deficiencies, and updates the management control systems description accordingly. Upon DOE issuance of the validation or acceptance documents, the contractor's updated management control systems description becomes a part of the contract. A contractor is then contractually obligated to maintain the management control systems in accordance with this systems description. However, systems validation or acceptance is not intended to inhibit continuing innovations and improvement of the contractor's management control systems.

1. Contractor Proposed Changes

Any proposed system changes will be submitted by the contractor to the CCO for approval in accordance with the contract terms and delegation of authority. When appropriate, changes proposed by the contractor should be discussed by the CCO with the cognizant auditor, and should

be referred to the surveillance monitor. Changes requiring interpretation of the CSCSC should be referred by the surveillance monitor to the DOE CSCSC Focal Point prior to reaching a decision on the acceptability of the proposed changes. The CCO should advise the contractor of the acceptability of proposed changes within 60 days after receipt from the contractor.

2. Deviations from Validated/Accepted Systems

During surveillance (see Chapter III), if the contractor's practices are found to differ from those delineated in the systems description, or if changes to the validated/accepted management control systems have been made without DOE approval, the changes will be analyzed and necessary correction of deficiencies will be requested. The contractor will be advised of the systems deficiencies and will be requested to notify the surveillance monitor of the corrective action being taken and the schedule for its accomplishment. Systems deficiencies that cannot be resolved promptly by the contractor will be referred to the CCO for corrective action. Unless urgency dictates an exception, reports to the project manager concerning such deficiencies will follow the established reporting frequency. In those cases where problems cannot be resolved by the project manager, the discrepancy will be referred to the DOE CSCSC Focal Point for resolution.

3. Withdrawal of Validation or Acceptance

A contractor may appeal through the project manager to the DOE CSCSC Focal Point for resolution of a disagreement over perceived failure to continue to operate systems as validated or accepted. The burden of proof is on the contractor to demonstrate that the management control systems and their operation do in fact comply with the systems description as validated or accepted. A visit to the site may be required if operation must be demonstrated. A written judgment will be prepared by the DOE CSCSC Focal Point, coordinated within DOE, and forwarded to the project manager and the CCO. A contractor unable to substantiate CSCSC compliance will be formally notified through the CCO that corrective action must be taken within 60 days. The CCO will monitor the corrective actions. If action taken by the contractor is inadequate, the formal validation or acceptance of the management control systems may be withdrawn.

Withdrawal documents will parallel acceptance/validation documents except that there is no certificate issued. The review director will coordinate preparation of a devalidation letter with involved DOE activities. The letter should be signed by the field office manager, and should be delivered to the contractor. A sample of such a letter is provided in Figure 17. This letter is not contractually binding. The CCO must officially notify the contractor that, as a result of the review and the subsequent devalidation letter, the contractor's management control systems do not comply with the CSCSC provisions set forth in the contract.

(DATE)

Corporate Official's Name
Corporate Title
Organization Name
Organization Address

Dear (Corporate Official's Name):

I am sorry to inform you that the (Organization) has not satisfactorily maintained its management control systems, as described in (insert title of the contractor's Management Control System Description), dated (insert document date), in compliance with the DOE Cost and Schedule Control Systems Criteria (CSCSC) for Contract Performance Measurement. Failure to operate the systems, as demonstrated on DOE Contract No. (insert contract number) precludes acceptance of the systems on any DOE contracts that include CSCSC requirements.

Recognizing that the systems must be dynamic to meet changing business needs, we have encouraged the development and implementation of innovations and improvements to your systems. However, the system must continue to be operated and documented in accordance with approved procedures, and changes must be approved by DOE.

You are urged to reassess and revise the documentation and operation of your management control systems to again comply with the DOE CSCSC as contractually specified. Please advise the contracting officer when corrective measures have been taken so that a reevaluation can be performed by DOE.

Sincerely,

DOE Official
DOE Title

Figure 17. Sample Letter of Withdrawal

ATTACHMENT 1

DEPARTMENT OF ENERGY COST AND SCHEDULE CONTROL SYSTEMS CRITERIA FOR CONTRACT PERFORMANCE MEASUREMENT AND UNIFORM REPORTING SYSTEM DOCUMENTATION

1. ORDERS

a. DOE 2250.1B, COST AND SCHEDULE CONTROL SYSTEMS CRITERIA FOR CONTRACT PERFORMANCE MEASUREMENT.

Establishes the Department of Energy policy for applying and using the CSCSC on DOE major system acquisition, major, and other projects.

b. DOE 1332.1A, UNIFORM REPORTING SYSTEM

Establishes the DOE policy for establishing reporting requirements for contracts, loans, and loan guarantees, and provides forms, formats, instructions, and procedures for reporting essential management information.

2. GUIDES

a. COST AND SCHEDULE CONTROL SYSTEMS CRITERIA FOR CONTRACT PERFORMANCE MEASUREMENT - SUMMARY DESCRIPTION.

Provides an overview of the DOE CSCSC approach for contract performance measurement. It was prepared to assist both DOE and industry personnel in understanding and using the CSCSC approach properly.

b. COST AND SCHEDULE CONTROL SYSTEMS CRITERIA FOR CONTRACT PERFORMANCE MEASUREMENT - IMPLEMENTATION GUIDE.

Provides uniform guidance for implementation of the CSCSC. It assists both DOE and contractor representatives in fulfilling their responsibilities for meeting CSCSC requirements.

c. COST AND SCHEDULE CONTROL SYSTEMS CRITERIA FOR CONTRACT PERFORMANCE MEASUREMENT - CONTRACTOR REPORTING/DATA ANALYSIS GUIDE.

Provides suggested techniques for analyzing contractor cost and schedule data which should give insight into the current contract performance status and help forecast future contract performance.

d. WORK BREAKDOWN STRUCTURE GUIDE

Provides guidance for use of the work breakdown structure technique for work identification and definition.

e. UNIFORM REPORTING SYSTEM - USE OF DATA GUIDE

Provides guidance on review, analysis, and assessment of Uniform Reporting System data.

3. INFORMATION PAMPHLETS

a. COST AND SCHEDULE CONTROL SYSTEMS CRITERIA FOR CONTRACT PERFORMANCE MEASUREMENT - INFORMATION PAMPHLET.

Provides a narrative and graphic illustration of the basic concepts and general requirements of CSCSC.

b. CONTRACT PERFORMANCE MEASUREMENT REPORTING AND BASELINE MANAGEMENT - INFORMATION PAMPHLET.

Provides a narrative and graphic illustration of performance measurement reporting and baseline management.

c. UNIFORM REPORTING SYSTEM - INFORMATION PAMPHLET

Provides a narrative and graphic illustration of the features and use of the Uniform Reporting System.

d. ANALYZING PERFORMANCE OF SMALL PROJECTS USING URS AND PMAS - INFORMATION PAMPHLET

Describes how existing methods for managing small projects can be combined with analytical techniques used on large projects to effect an improvement in small project management.

e. PROJECT STATUS REPORTING AND PERFORMANCE DATA ANALYSIS - INFORMATION PAMPHLET

Addresses some basic concepts and general requirements concerning project reporting and data analysis.

4. OTHER

a. COST AND SCHEDULE CONTROL SYSTEMS CRITERIA FOR CONTRACT PERFORMANCE MEASUREMENT - CSCSC CHECKLIST HANDBOOK

In handbook form, provides a listing of the CSCSC and checklist questions with space for notes by DOE or industry personnel.

b. PERFORMANCE MEASUREMENT ANALYSIS SYSTEM FOR MICROCOMPUTERS

A user oriented system designed to track cost and schedule performance data using a microcomputer.

ATTACHMENT 2

CSCSC EVALUATION/DEMONSTRATION
REVIEW CHECKLIST AND FORMATS

I. THE CRITERIA CHECKLIST

The criteria checklist contains the 35 CSCSC (the statements in capital letters) followed by a number of questions which assist in interpreting a specific criterion. This checklist is the basis for most CSCSC review activities from evaluation of proposals to on-site examination of the contractor's management control system in operation. Its use intensifies as the review cycle progresses from preaward to demonstration and subsequent surveillance activities.

- o Preaward. Reference for evaluating contractor proposals.

- o Implementation Visit. Assists in review of contractor's proposed implementation efforts. Also provides the basis for structuring of the initial contractor briefing on the management control systems to be used.

- o Readiness Assessment. Certain checklist items are stressed to determine the contractor's readiness for a demonstration review. The readiness assessment checklist, beginning on page A3-1, performs this function. This checklist is based on the criteria checklist and the objectives of the readiness assessment.

- o Demonstration Review. The checklist and the attendant formats are used to document the contractor's compliance with the CSCSC and to structure the demonstration review report (Attachment 5).

- o Surveillance. The checklist and the attendant formats are used selectively to document the contractor's compliance with the CSCSC and to structure the surveillance review report in accordance with the outline in (Attachment 4).

II. CHECKLIST USE

The CSCSC approach embodied in the checklist does not prescribe specific methods of organization, planning, operation, and control. Contractors are free to use the procedures best suited to their needs, environment, and management philosophy, subject only to the requirement that they meet the sound management criteria embodied in the CSCSC. Thus, use of the checklist should be based on common sense, which means being practical, but also mindful of the overall requirement for performance measurement. Its use is not intended to introduce a strict pass/fail type of situation in evaluating management control systems. Each CSCSC implementation environment may differ considerably, depending on contract scope, and thus affect a question's applicability or the manner in which it is evaluated. Examples of such cases are:

- On development contracts, checklist questions oriented to production may not apply.

- On construction contracts, certain overhead and work package questions, because of industry practice, would be handled differently than for manufacturing contract implementations.

- On management and operations implementations, WBS and organizational questions require different treatment based on this specific environment.

III. CHECKLIST RESPONSIBILITIES

The checklist is annotated to reflect the functional approach to a demonstration review. Under this approach, checklist questions are combined into areas of responsibility for review by a particular team member or group. In some reviews it may be helpful to extract the checklist questions pertinent to one area of responsibility. This results in a compact checklist for use by team members.

The following paragraphs detail the basis for grouping the responsibilities. The letters in ( ) correlate with those in the checklist beginning at page A2-6.

- Total Program (TP)

  Assigned To: Team chief (normally a project office representative).

  Parts of the criteria checklist having "TP" responsibility may be extracted to facilitate an overall review of those areas where a functional approach is deemed impractical. Even though certain sections of the "organization" CSCSC are assigned functionally, the team chief is responsible for the items identified "TP", since review of these items provides an overview of the entire demonstration. In addition, specific items deemed relevant for total systems analysis are included under "TP."

- Scheduling (S)

  Assigned To: Team member(s), e.g., project office scheduling specialists or project office representative familiar with project schedules.

  Parts of the criteria checklist having "S" responsibility concentrate on ensuring that the contractor has a scheduling system that is both reliable and informative. The team member reviewing the schedules must be convinced that planned and actual status are being properly maintained and have been so since the start of the contract. There must be satisfactory control of the contract by the contractor and satisfactory visibility and reporting to DOE using the Milestone Schedule Plan/Status Report. Finally, the contractor's scheduling

system must provide timely problem identification and traceability of the problem to its origin. Through use of the "S" questions, a structured, orderly review of the contractor's scheduling system is facilitated. Functional groups are also assigned certain "S" items to ensure proper review of functional scheduling. The team chief will use the scheduling and functional group findings for evaluation of the contractor's scheduling system.

- Accounting (A)

  Assigned To: Team member(s); e.g., cognizant auditor, controller, or project office representative familiar with project funding.

  Parts of the criteria checklist having "A" responsibility were constructed to ensure that the many and varied accounting systems of the contractor are all subsets of the single, formal, integrated system used for the generation of the information required for internal management of the contract. In order to accomplish this task, the "A" items are oriented toward the accounting fundamentals of the contractor's system. As a further task, the team members assigned to the "A" items are responsible for report reconciliation -- the need for accurate data assemblage.

- Revisions (R)

  Assigned To: Team member(s); e.g., CCO, or on-site Government representative familiar with the contract and contract procedures.

  Parts of the criteria checklist having "R" responsibility address maintenance of the contract budget base. The time phasing of this base results in the performance measurement baseline that consists of budgets assigned to scheduled cost accounts. The performance measurement baseline is used by the contractor and the project office in measuring performance against contract terms. The "R" items emphasize the analysis of the controls that have been instituted by the contractor to minimize reprogramming actions and the procedures devised to curb extensive reevaluation of the baseline. Revisions also includes review of contract change processing to ensure that proper records are established and maintained by the contractor to permit traceability to the original baseline if ever necessary.

- Functional (F)

  Engineering

  Assigned To: Team member(s); e.g., project office representative familiar with CSCSC and engineering.

  Construction

  Assigned To: Team member(s); e.g., on-site Government representative or project office representatives familiar with CSCSC and construction management.

Other as Applicable

Parts of the criteria checklist having "F" responsibility are designed to analyze the contractor's operation from an organizational aspect. Review of the "F" items ensures that the different contractor organizations are fully involved in systems operation; i.e., are knowledgeable of the systems, are using the systems, are receiving appropriate reports, and have pertinent systems procedures on hand. The team members assigned the "F" items should do an indepth analysis of the functional organization involved. They will be concerned with proving the workability of the contractor's systems in the organizational, planning and budgeting, and analysis areas of the CSCSC. Accordingly, the "F" items may be further subdivided by functional organization or by criteria area for assignment to members.

IV. FORMATS

Sample formats for performing data reconciliation and evaluating cost account and work package characteristics during reviews start on page A2-20. Such formats are prepared to clarify checklist items and to support report findings. The criteria checklist and formats are cross-referenced to each other. These formats are typical and may require change to meet the requirements of different contractor organizations and contract work breakdown structures. Also, additional formats may be developed as required for a specific criterion verification. The team member(s) should assure proper preparation of the formats. The completed formats are used as exhibits in the Demonstration Review Report.

In preparing the formats, the following should be considered:

- Data must be evaluated for consistent application of standards or targets, planned ratios and bases, factors, rates, and methods.
- Accomplishment indicators (for example, realization factors, milestones) must be consistent for computing BCWP.
- Derivation of the data elements used in the sample formats must be substantiated.
- The following is the list of sample formats.

Sample Format	Title
1	System Integration, Major Organization (For Example, Engineering) and Associated Documentation
2	Reconciliation of Internal Data - Cost Account Data
3	Reconciliation of Internal Data - CWBS Data
4	Reconciliation of Internal Data - Organization Data

5	Reconciliation of Internal Data - Summary Level Data
6	Evaluation of Cost Accounts/Work Packages
	a. Length of Cost Accounts/Work Packages
	b. Value of Cost Accounts/Work Packages
7	Contract Indirect Cost Evaluation
8	Reconciliation of Internal Data (Budget Revision) - Reporting Level CWBS Elements
9	Reconciliation of External Reports to Internal Data (CWBS)
1Ø	Reconciliation of External Reports to Internal Data (Organization)
11	Reconciliation of External Reports
12	Reconciliation of Internal Data (Estimated Cost at Completion)
13	Reconciliation of Internal Data (Estimated Cost at Completion)

CRITERIA CHECKLIST	
I. ORGANIZATION	
1. DEFINE ALL THE AUTHORIZED WORK AND RELATED RESOURCES TO MEET THE REQUIREMENTS OF THE CONTRACT, USING THE FRAMEWORK OF THE CONTRACT WORK BREAKDOWN STRUCTURE.	
a. Is only one CWBS used for the contract?	TP, F
b. Is all contract work included in the CWBS?	TP
c. Are the following elements included in the CWBS:	
(1) Products or services to be provided?	TP
(2) CWBS elements specified for external reporting?	TP
(3) Appropriate intermediate levels?	TP
(4) Cost account levels?	F
2. IDENTIFY THE INTERNAL ORGANIZATIONAL ELEMENTS AND THE MAJOR SUBCONTRACTORS RESPONSIBLE FOR ACCOMPLISHING THE AUTHORIZED WORK.	
a. Are all authorized tasks assigned to identified organizational elements (this must occur at the cost account level as a minimum)?	TP
b. Is subcontracted work defined and identified to the appropriate subcontractor within the proper CWBS element?	F
3. PROVIDE FOR THE INTEGRATION OF THE CONTRACTOR'S PLANNING, SCHEDULING, BUDGETING, ESTIMATING, WORK AUTHORIZATION, AND COST ACCUMULATION SYSTEMS WITH EACH OTHER, THE CONTRACT WORK BREAKDOWN STRUCTURE, AND THE ORGANIZATIONAL STRUCTURE.	
a. Are the contractor's management control systems listed above integrated with each other, the CWBS and the organizational structure at the total contract and cost account levels?	TP
4. IDENTIFY THE MANAGERIAL POSITIONS RESPONSIBLE FOR CONTROLLING OVERHEAD (INDIRECT COSTS).	
a. Are the following organizational elements and managers clearly identified:	
(1) Those responsible for the establishment of budgets and assignment of resources for overhead?	TP

(2) Those responsible for overhead performance and control of related costs?	TP
b. Are the responsibilities and authorities of each of the above organizational elements or managers clearly defined?	TP
5. PROVIDE FOR INTEGRATION OF THE CONTRACT WORK BREAKDOWN STRUCTURE WITH THE CONTRACTOR'S FUNCTIONAL ORGANIZATIONAL STRUCTURE IN A MANNER THAT PERMITS COST AND SCHEDULE PERFORMANCE MEASUREMENT FOR CONTRACT WORK BREAKDOWN STRUCTURE AND ORGANIZATIONAL ELEMENTS.	
a. Is each cost account assigned to a single organizational element directly responsible for the work and identifiable to a single element of the CWBS?	TP
b. Are the data elements for measuring performance (BCWS, BCWP, ACWP, BAC, EAC, and associated variances) available at the levels selected for control and analysis?	TP
II. PLANNING AND BUDGETING	
1. SCHEDULE THE AUTHORIZED WORK IN A MANNER WHICH DESCRIBES THE SEQUENCE OF WORK AND IDENTIFIES THE SIGNIFICANT TASK INTERDEPENDENCIES REQUIRED TO MEET THE DEVELOPMENT, PRODUCTION, CONSTRUCTION, INSTALLATION, AND DELIVERY REQUIREMENTS OF THE CONTRACT.	
a. Does the scheduling system contain:	
(1) A contract master schedule?	S
(2) Intermediate schedules as required which provide a logical sequence from the master schedule to the cost account level?	S
(3) Detailed schedules which support cost account start and completion dates/events?	S, F
b. Are significant decision points, constraints, and interfaces identified as key milestones?	S
c. Does the scheduling system provide for the identification of work progress against technical and other milestones, and also provide for forecasts of completion dates of scheduled work?	S
d. Are detail schedule dates formally recorded in terms of physical accomplishment by date?	S, F
2. IDENTIFY PHYSICAL PRODUCTS, MILESTONES, TECHNICAL PERFORMANCE GOALS, OR OTHER INDICATORS THAT WILL BE USED TO MEASURE OUTPUT.	
a. Are meaningful indicators identified for use in measuring the status of cost and schedule performance?	S, F

	b. Does the contractor's system identify and measure work accomplishment against the schedule plan?	S, F
	c. Are current work performance indicators and goals relatable to original goals as modified by contractual changes, replanning, and reprogramming actions?	S, F
3.	ESTABLISH AND MAINTAIN A TIME-PHASED BUDGET BASELINE AT THE COST ACCOUNT LEVEL AGAINST WHICH CONTRACT PERFORMANCE CAN BE MEASURED. INITIAL BUDGETS ESTABLISHED FOR THIS PURPOSE WILL BE BASED ON THE NEGOTIATED TARGET COST. ANY OTHER AMOUNT USED FOR PERFORMANCE MEASUREMENT PURPOSES MUST BE FORMALLY RECOGNIZED BY BOTH THE CONTRACTOR AND THE GOVERNMENT.	
	a. Does the performance measurement baseline consist of the following:	
	(1) Time-phased cost account budgets?	F
	(2) Higher level budgets (budgets assigned to both a functional organization and CWBS element, but not yet broken down into cost account budgets)?	TP
	(3) Undistributed budget, if any?	R
	(4) Indirect budgets, if not included in the above?	A
	b. Is the entire contract planned in time-phased cost accounts to the extent practicable?	F
	c. In the event that future contract effort cannot be defined in sufficient detail to allow the establishment of cost accounts, is the remaining budget assigned to the lowest practicable functional organization and CWBS level element for subsequent distribution to cost accounts?	TP, F
	d. Does the contractor require sufficient detailed planning of cost accounts to constrain the application of budget initially allocated for future effort to current effort?	TP, F
	e. Are cost accounts opened and closed based on the start and completion of work contained therein?	F
4.	ESTABLISH BUDGETS FOR ALL AUTHORIZED WORK WITH SEPARATE IDENTIFICATION OF COST ELEMENTS (LABOR, MATERIAL, AND SO FORTH).	
	a. Does the budgeting system contain:	
	(1) The total budget for the contract (including estimates for authorized but unpriced work)?	TP
	(2) Budgets assigned to major functional organizations?	TP, F
	(3) Budgets assigned to cost accounts?	F

b. Are the budgets assigned to cost accounts planned and identified in terms of the following cost elements:

(1) Direct labor dollars and/or hours? F
(2) Material and/or subcontract dollars? F
(3) Other direct dollars? F

c. Does the work authorization system contain:

(1) Authorization to proceed with all authorized work or to terminate it, as applicable? TP
(2) Appropriate work authorization documents which subdivide the contractual effort and responsibilities within functional organizations? F

5. TO THE EXTENT THE AUTHORIZED WORK CAN BE IDENTIFIED IN DISCRETE, SHORT-SPAN WORK PACKAGES, ESTABLISH BUDGETS FOR THIS WORK IN TERMS OF DOLLARS, HOURS, OR OTHER MEASURABLE UNITS. WHERE THE ENTIRE COST ACCOUNT CANNOT BE SUBDIVIDED INTO DETAILED WORK PACKAGES, IDENTIFY THE LONG-TERM EFFORT IN LARGER PLANNING PACKAGES FOR BUDGET AND SCHEDULING PURPOSES.

a. Do work packages reflect the actual way in which the work will be done and are they meaningful product or task oriented subdivisions of a higher level element of work? F

b. Are detailed work packages planned as far in advance as practicable? F

c. Is work progressively subdivided into detailed work packages as requirements are defined? F

d. Is future work which cannot be planned in detail subdivided to the extent practicable for budgeting and schedule purposes? F

e. Are work packages reasonably short in time duration or do they have adequate objective indicators/milestones to minimize the in-process work evaluation? F

f. Do work packages consist of discrete tasks which are adequately described? F

g. Can the contractor substantiate work package and planning package budgets? F

h. Are budgets or value assigned to work packages and planning packages in terms of dollars, hours, or other measurable units? F

i. Are work packages assigned to performing organizations? F

6.	PROVIDE THAT THE SUM OF ALL WORK PACKAGE BUDGETS PLUS PLANNING PACKAGE BUDGETS WITHIN A COST ACCOUNT EQUALS THE COST ACCOUNT BUDGET.	
	a. Does the sum of all work package budgets plus planning package budgets within cost accounts equal the budgets assigned to those cost accounts?	F
7.	IDENTIFY RELATIONSHIPS OF BUDGETS OR STANDARDS IN UNDERLYING WORK AUTHORIZATION SYSTEMS TO BUDGETS FOR WORK PACKAGES.	
	a. Where engineered standards or other internal work measurement systems are used, is there a formal relationship between these values and cost account or work package budgets?	F
8.	IDENTIFY AND CONTROL LEVEL OF EFFORT ACTIVITY BY TIME-PHASED BUDGETS ESTABLISHED FOR THIS PURPOSE. ONLY THAT EFFORT WHICH CANNOT BE IDENTIFIED AS DISCRETE, SHORT-SPAN WORK PACKAGES OR AS APPORTIONED EFFORT WILL BE CLASSED AS LEVEL OF EFFORT.	
	a. Are time-phased budgets established for planning and control of level of effort activity by category of resource, for example, type of manpower and/or material?	F
	b. Is work properly classified as measured effort, level of effort, or apportioned effort and appropriately separated?	TP, F
9.	ESTABLISH OVERHEAD BUDGETS FOR THE TOTAL COSTS OF EACH SIGNIFICANT ORGANIZATIONAL COMPONENT WHOSE EXPENSES WILL BECOME INDIRECT COSTS. REFLECT IN THE CONTRACT BUDGETS AT THE APPROPRIATE LEVEL, THE AMOUNTS IN OVERHEAD POOLS THAT WILL BE ALLOCATED TO THE CONTRACT AS INDIRECT COSTS.	
	a. Are overhead budgets established on a facility-wide basis at least annually for the life of the contract?	A
	b. Are overhead budgets established for each organization which has authority to incur overhead costs?	A
	c. Are all elements of expense identified to overhead budgets?	A
	d. Are overhead budgets and costs (e.g., engineering overhead, independent research and development) being handled in accordance with the disclosure statement when applicable, or otherwise properly classified?	A

e.	Is the anticipated (firm and potential) business base projected in a rational, consistent manner?	A
f.	Are overhead budgets established on a basis consistent with the anticipated direct business base?	A
g.	Are the requirements for all items of overhead established by rational, traceable processes?	A
h.	Are the overhead pools formally and adequately identified?	A
i.	Are the organizations and items of cost assigned to each pool identified?	A
j.	Are projected overhead costs in each pool and the associated direct costs used as the basis for establishing interim rates for allocating overhead to contracts?	A
k.	Are projected overhead rates applied to the contract beyond the current year based on:	A
	(1) Contractor financial periods, e.g., annual?	
	(2) The projected business base for each period?	
	(3) Contemplated overhead expenditure for each period based on the best information currently available?	A
l.	Are overhead projections adjusted in a timely manner to reflect:	
	(1) Changes in the current direct and projected base?	A
	(2) Changes in the nature of the overhead requirements?	A
	(3) Changes in the overhead pool and/or organization structure?	A
m.	Are the CWBS and organizational levels for application of the projected overhead costs identified?	A, TP

1Ø.	IDENTIFY MANAGEMENT RESERVES AND UNDISTRIBUTED BUDGET.	
a.	Is all management reserve budget identified and excluded from the performance measurement baseline?	R
b.	Are records maintained to show how management reserve budget is used?	R
c.	Is undistributed budget limited to contract effort which cannot yet be planned to cost accounts?	R
d.	Are records maintained to show how undistributed budget is controlled?	R

11.	PROVIDE THAT THE CONTRACT TARGET COST PLUS ESTIMATED COST OF AUTHORIZED BUT UNPRICED WORK IS RECONCILED WITH THE SUM OF ALL INTERNAL CONTRACT BUDGETS AND MANAGEMENT RESERVES.	
	a. Does the contractor's systems description or procedures require that the performance measurement baseline plus management reserve budget equal the contract budget base?	R
	b. Do the sum of the cost account budgets, higher level organizational and CWBS elements budgets, undistributed budget, and management reserve budget reconcile with the contract budget base?	A
	III. ACCOUNTING	
1.	RECORD DIRECT COSTS ON AN APPLIED OR OTHER ACCEPTABLE BASIS IN A FORMAL SYSTEM THAT IS CONTROLLED BY THE GENERAL BOOKS OF ACCOUNT.	
	a. Does the accounting system provide a basis for auditing records of direct costs chargeable to the contract?	A
	b. Are labor, material, and other direct cost accumulated within cost accounts in a manner consistent with their budgets using recognized, acceptable costing techniques and controlled by the general book of accounts?	A
2.	SUMMARIZE DIRECT COSTS FROM COST ACCOUNTS INTO THE WORK BREAKDOWN STRUCTURE WITHOUT ALLOCATION OF A SINGLE COST ACCOUNT TO TWO OR MORE WORK BREAKDOWN STRUCTURE ELEMENTS.	
	a. Is it possible to summarize direct costs from the cost account level through the CWBS to the total contract level without allocation of a lower level CWBS element to two or more higher level CWBS elements? (This does not preclude the allocation of costs from a cost account containing common items to appropriate using cost accounts).	A
3.	SUMMARIZE DIRECT COSTS FROM THE COST ACCOUNT INTO THE CONTRACTOR'S FUNCTIONAL ORGANIZATIONAL ELEMENTS WITHOUT ALLOCATION OF A SINGLE COST ACCOUNT TO TWO OR MORE ORGANIZATIONAL ELEMENTS.	
	a. Is it possible to summarize direct costs from the cost account level to the highest functional organizational level without allocation of a lower level organization's cost to two or more higher level organizations?	A

4.	RECORD ALL INDIRECT COSTS WHICH WILL BE ALLOCATED TO THE CONTRACT.
a.	Does the cost accumulation system provide for summarization of indirect costs from the point of allocation to the contract total? A
b.	Are indirect costs accumulated for comparison with the corresponding budgets? A
c.	Do the lines of authority for incurring indirect costs correspond to the lines of responsibility for management control of the same components of costs? A
d.	Are indirect costs charged to the appropriate indirect pools and incurring organization?
e.	Are the bases and rates for allocating costs from each indirect pool consistently applied? A
f.	Are the bases and rates for allocating costs from each indirect pool to commercial work consistent with those used to allocate such costs to government contracts? A
g.	Are the rates for allocating costs from each indirect cost pool to contracts updated as necessary to assure a realistic monthly allocation of indirect costs without significant year end adjustments? A
h.	Are the procedures for identifying indirect costs to incurring organizations, indirect cost pools, and allocating the costs from the pools to the contracts formally documented and followed? A
5.	IDENTIFY THE BASES FOR ALLOCATING THE COST OF APPORTIONED EFFORT.
a.	Is effort which is planned and controlled in direct relationship to cost accounts or work packages identified as apportioned effort? F
b.	Are methods for applying apportioned effort costs to cost accounts applied consistently, and documented in an established procedure and followed? F
6.	IDENTIFY UNIT COSTS, EQUIVALENT UNIT COSTS, OR LOT COSTS AS APPLICABLE.
a.	Does the contractor's system provide unit costs, equivalent unit or lot costs in terms of labor, material, other direct, and indirect costs? A

b. Does the contractor have procedures which permit identification of recurring or nonrecurring costs as necessary and are they followed? A

7. THE CONTRACTOR'S MATERIAL ACCOUNTING SYSTEM WILL PROVIDE FOR: ACCURATE COST ACCUMULATION AND ASSIGNMENT OF COSTS TO COST ACCOUNTS IN A MANNER CONSISTENT WITH THE BUDGETS, USING RECOGNIZED, ACCEPTABLE COSTING TECHNIQUES; DETERMINATION OF PRICE VARIANCES BY COMPARING PLANNED VERSUS ACTUAL COMMITMENTS; COST PERFORMANCE MEASUREMENT AT THE POINT IN TIME MOST SUITABLE FOR THE CATEGORY OF MATERIAL INVOLVED, BUT NO EARLIER THAN THE TIME OF ACTUAL RECEIPT OF MATERIAL; DETERMINATION OF COST VARIANCES ATTRIBUTABLE TO THE EXCESS USAGE OF MATERIAL; DETERMINATION OF UNIT OR LOT COSTS WHEN APPLICABLE; AND FULL ACCOUNTABILITY FOR ALL MATERIAL PURCHASED FOR THE CONTRACT, INCLUDING THE RESIDUAL INVENTORY.

a. Are material costs accounted for accurately and charged to cost accounts, consistent with the budgets therein, using recognized, acceptable costing techniques? A

b. Does the contractor's system provide for identifying material cost variances as to price variance and usage variance? A

c. Do the contractor's procedures for recording material costs permit and facilitate performance measurement? A

d. Are material costs reported within the same period as that in which BCWP is earned for that material? A

e. Are records maintained to show full accountability for all material purchased for the contract (including Government furnished property and residual inventory)? A

IV. ANALYSIS

1. IDENTIFY AT THE COST ACCOUNT LEVEL ON A MONTHLY BASIS USING DATA FROM OR RECONCILABLE WITH, THE ACCOUNTING AND BUDGETING SYSTEMS: BUDGETED COST FOR WORK SCHEDULED AND BUDGETED COST FOR WORK PERFORMED; BUDGETED COST FOR WORK PERFORMED AND APPLIED (ACTUAL WHERE APPROPRIATE) DIRECT COSTS FOR THE SAME WORK; BUDGETS AT COMPLETION AND ESTIMATES AT COMPLETION; AND VARIANCES RESULTING FROM THE ABOVE COMPARISONS CLASSIFIED IN TERMS OF LABOR, MATERIAL, OR OTHER APPROPRIATE ELEMENTS TOGETHER WITH THE REASONS FOR SIGNIFICANT VARIANCES, INCLUDING TECHNICAL PROBLEMS.

a. Does the contractor's system include procedures for measuring performance of the organization responsible for the cost account and are they followed? F

b. Does the contractor's system include procedures for measuring the performance of critical subcontractors and are they followed? TP, F

c. Is cost and schedule performance measurement done in a consistent, systematic manner? TP, F

d. Are the actual costs used for variance analysis reconcilable with data from the accounting system? A

e. Is BCWP calculated in a manner consistent with the way work is planned? (For example, if BCWS is planned on a measured basis, BCWP is calculated on a measured basis). F

f. Does the contractor have variance analysis procedures and a demonstrated capability for identifying (at the cost account and other appropriate levels) cost, schedule, and at completion variances resulting from the system, which:

(1) Identify and isolate problems causing unfavorable variances? TP, F
(2) Evaluate the impact of schedule changes, work around, etc.? TP, F
(3) Evaluate the performance of operating organizations? TP, F
(4) Identify potential or actual overruns and underruns? TP, F

2. IDENTIFY ON A MONTHLY BASIS, IN THE DETAIL NEEDED BY MANAGEMENT FOR EFFECTIVE CONTROL, BUDGETED INDIRECT COSTS, ACTUAL INDIRECT COSTS, AND VARIANCES ALONG WITH THE REASONS.

a. Are variances between budgeted and actual indirect costs identified and analyzed at the level of assigned responsibility for their control (indirect pool, department, etc.)? A

b. Does the contractor's cost control system provide for capability to identify the existence and causes of cost variances resulting from:

(1) Incurrence of actual indirect costs in excess of budgets, by element of expense? A
(2) Changes in the direct base to which overhead costs are allocated. A

c. Are management actions taken to reduce indirect costs where there are significant adverse variances? A

3. SUMMARIZE THE DATA ELEMENTS AND ASSOCIATED VARIANCES LISTED IN PARAGRAPHS 1 AND 2, ABOVE, THROUGH THE CONTRACTOR ORGANIZATION AND WORK BREAKDOWN STRUCTURE TO THE REPORTING LEVEL SPECIFIED IN THE CONTRACT.

a.	Are data (BCWS, BCWP, ACWP, BAC, EAC, and their variances) progressively summarized from the cost account level to the contract level through the CWBS?	A
b.	Are the same data summarized through the functional organizational structure for progressively higher levels of management?	A
c.	Are the data reconcilable between internal summary reports and reports forwarded to the Government?	A
d.	Are procedures for variance analysis documented and consistently applied at the cost account level and selected CWBS and organizational levels at least monthly as a routine task?	F
4.	IDENTIFY SIGNIFICANT DIFFERENCES ON A MONTHLY BASIS BETWEEN PLANNED AND ACTUAL SCHEDULE ACCOMPLISHMENTS TOGETHER WITH THE REASONS.	
a.	Does the scheduling system identify in a timely manner the status of work?	S, F
b.	Does the contractor use objective results, design reviews, and tests to track schedule performance?	S, F
5.	IDENTIFY MANAGERIAL ACTIONS TAKEN AS A RESULT OF PARAGRAPHS 1 THROUGH 4, ABOVE.	
a.	Are data disseminated to the contractor's managers timely, accurate and usable?	TP, F, A, S
b.	Are data being used by managers in an effective manner to ascertain program or functional status to identify reasons for significant variances, and to initiate appropriate corrective action?	TP, F
c.	Are there procedures for monitoring action items and corrective actions to the point of resolution and are these procedures being followed?	TP, F
6.	BASED ON PERFORMANCE TO DATE AND ON ESTIMATES OF FUTURE CONDITIONS, DEVELOP REVISED ESTIMATES OF COST AT COMPLETION FOR WORK BREAKDOWN STRUCTURE ELEMENTS IDENTIFIED IN THE CONTRACT AND COMPARE THESE WITH THE CONTRACT BUDGET BASE AND THE LATEST STATEMENT OF FUNDS REQUIREMENTS REPORTED TO THE GOVERNMENT.	
a.	Are estimates at completion based on:	
	(1) Performance to date?	F
	(2) Actual costs to date?	F

	(3) Knowledgeable projections of future performance?	F
	(4) Estimates of the cost for contract work remaining to be accomplished considering economic escalation?	TP
b.	Are the overhead rates used to develop the contract cost estimate to complete based on:	
	(1) Historic experience?	A
	(2) Contemplated management improvements?	A
	(3) Projected economic escalation?	A
	(4) The anticipated business volume?	A
c.	Are EACs generated with sufficient frequency to provide identification of future cost problems in time for possible corrective or preventive actions by both the contractor and the Government Project Manager?	TP, F
d.	Are estimates developed by contract project personnel coordinated with top management to determine whether required resources will be available in accordance with revised planning?	TP, F
e.	Are EACs generated by appropriate personnel for the following levels:	
	(1) Cost accounts?	F
	(2) Major functional areas of contract effort?	F
	(3) Major subcontracts?	F
	(4) CWBS elements contractually specified for reporting of status to the Government?	TP
	(5) Total contract (all authorized work)?	TP
f.	Are the latest revised estimates at completion compared with the established budgets at appropriate levels and causes of variances identified?	TP, F
g.	Are EACs generated in a consistent manner? Are there procedures established for appropriate aspects of generating EACs and are they followed?	A, F
h.	Are EACs utilized in determining contract funding requirements and reporting them to the Government?	A
i.	Are the contractor's EACs reconcilable with cost data reported to the Government?	A

V. REVISIONS & ACCESS TO DATA

1. INCORPORATE CONTRACTUAL CHANGES IN A TIMELY MANNER RECORDING THE EFFECTS OF SUCH CHANGES IN BUDGETS AND SCHEDULES. IN THE DIRECTED EFFORT BEFORE NEGOTIATION OF A CHANGE, BASE SUCH REVISIONS ON THE AMOUNT ESTIMATED AND BUDGETED TO THE FUNCTIONAL ORGANIZATIONS.

a. Are authorized changes being incorporated in a timely manner?	R
b. Are all affected work authorizations, budgeting, and scheduling documents amended to properly reflect the effects of authorized changes?	R
c. Are internal budgets for authorized, but not priced changes based on the contractor's resource plan for accomplishing the work?	R
d. If current budgets for authorized changes do not sum to the negotiated cost for the changes, does the contractor compensate for the differences by revising the undistributed budget, management reserve budget, budgets established for work not yet started, or by a combination of these?	R
2. RECONCILE ORIGINAL BUDGETS FOR THOSE ELEMENTS OF THE WORK BREAKDOWN STRUCTURE IDENTIFIED AS PRICED LINE ITEMS IN THE CONTRACT, AND FOR THOSE ELEMENTS AT THE LOWEST LEVEL OF THE PROJECT SUMMARY WORK BREAKDOWN STRUCTURE, WITH CURRENT PERFORMANCE MEASUREMENT BUDGETS IN TERMS OF CHANGES TO THE AUTHORIZED WORK; AND INTERNAL REPLANNING IN THE DETAIL NEEDED BY MANAGEMENT FOR EFFECTIVE CONTROL.	
a. Are current budgets resulting from changes to the authorized work and/or internal replanning, reconcilable to original budgets for specified reporting items?	R
3. PROHIBIT RETROACTIVE CHANGES TO RECORDS PERTAINING TO WORK PERFORMED THAT WILL CHANGE PREVIOUSLY REPORTED AMOUNTS FOR DIRECT COSTS, INDIRECT COSTS, OR BUDGETS, EXCEPT FOR CORRECTION OF ERRORS AND ROUTINE ACCOUNTING ADJUSTMENTS.	
a. Are retroactive changes to direct costs, and indirect costs prohibited and avoided, except for the correction of errors and routine accounting adjustments?	A
b. Are direct or indirect cost adjustments being accomplished in accordance with accounting procedures acceptable to the Cognizant Auditor?	A
c. Are retroactive changes to BCWS and BCWP prohibited except for correction of errors or for normal accounting adjustments?	R, A
4. PREVENT REVISIONS TO THE CONTRACT BUDGET BASE EXCEPT FOR GOVERNMENT DIRECTED CHANGES TO CONTRACTUAL EFFORT.	
a. Are procedures established to prevent changes to the contract budget base other than those authorized by contractual action and are they followed?	R

b. Is authorization of budgets in excess of the contract budget base controlled formally, accomplished in accordance with established procedures, and done with the full knowledge and recognition of the procuring activity?	R
5. DOCUMENT, INTERNALLY, CHANGES TO THE PERFORMANCE MEASUREMENT BASELINE AND, ON A TIMELY BASIS, NOTIFY THE GOVERNMENT CONTRACTING OFFICER THROUGH PRESCRIBED PROCEDURES.	
a. Are changes to the performance measurement baseline made as a result of contractual redirection, application of undistributed budget, the use of management reserve budget, internal replanning, or formal reprogramming, properly documented and reflected in the Cost Performance Report and Project Status Report?	R, TP
b. Are procedures in existence that restrict changes to budgets for open work packages and are these procedures adhered to?	R
c. Are retroactive changes to budgets for completed work specifically prohibited in an established procedure and is this procedure adhered to?	R
d. Are procedures in existence that control replanning of unopened work packages and are these procedures adhered to?	R
6. PROVIDE THE CONTRACTING OFFICER AND HIS OR HER DULY AUTHORIZED REPRESENTATIVES ACCESS TO ALL OF THE FOREGOING INFORMATION AND SUPPORTING DOCUMENTS.	
a. Does the contractor provide access to all pertinent records to the review team and surveillance personnel?	TP

SYSTEMS INTEGRATION
MAJOR ORGANIZATION (FOR EXAMPLE: ENGINEERING) AND
ASSOCIATED DOCUMENTATION
SAMPLE FORMAT 1

CWBS LEVEL (1)	ORGANIZATION LEVEL (2)	SCHEDULING (3)	BUDGETING (4)	ESTIMATING (5)	WORK AUTHORIZATION (6)	PERFORMANCE MEASUREMENT (7)
Contract						
Cost Account						
Work Package						

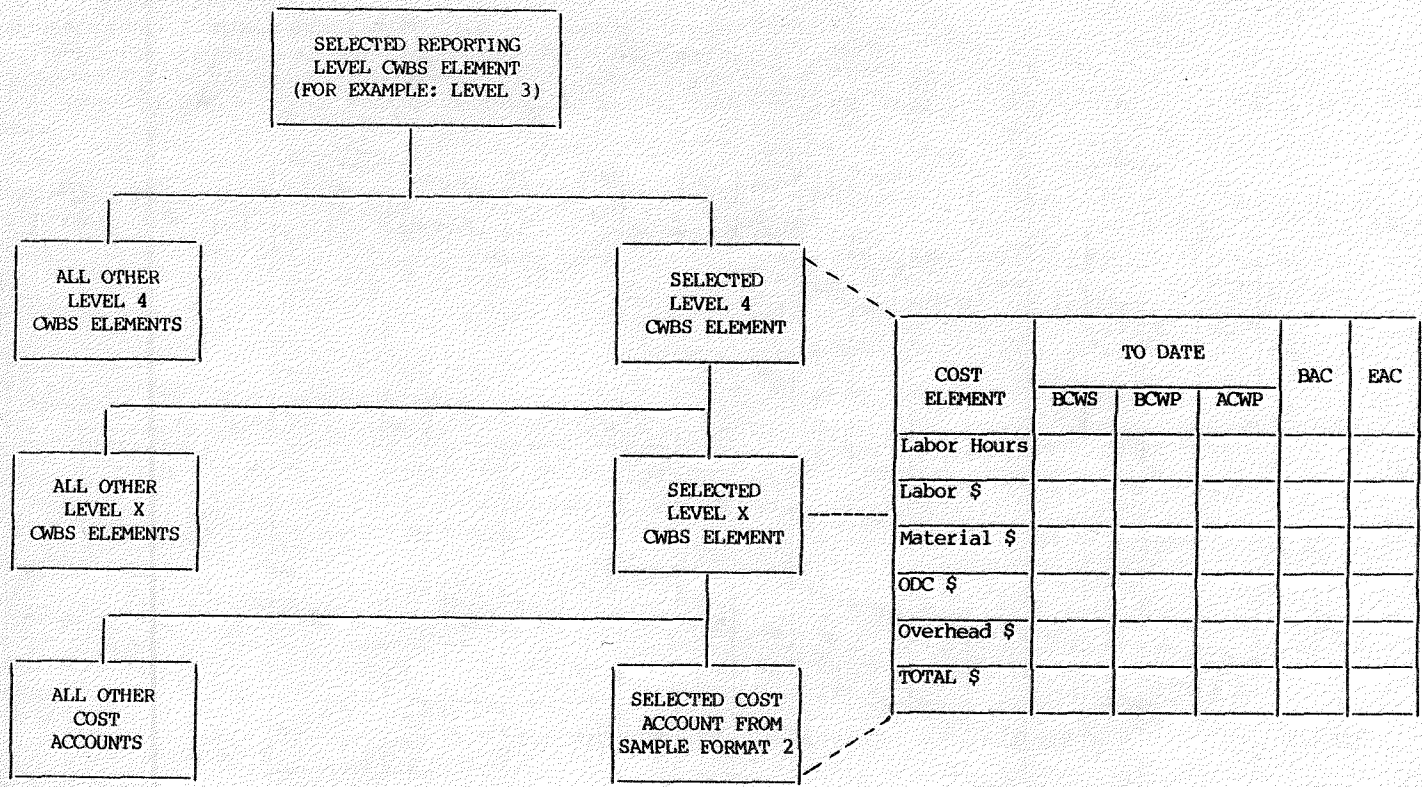
NOTES:
1. Column 1. Identify a representative element for each level of the CWBS from the total contract level to the cost account and work package level.
2. Column 2. Where applicable, identify suborganization responsible for various CWBS levels.
3. Columns 3 through 7. Identify the appropriate document title for each CWBS level (column 1) and internal organization level (column 2).
4. Prepare format for each major organization.
5. There need not be a different type of document used for each CWBS and organization level.
6. Integration of internal documents should occur, as a minimum, at the cost account/work package level and the total contract.
7. Reference criteria checklist, Item I-3

RECONCILIATION OF INTERNAL DATA
COST ACCOUNT DATA
SAMPLE FORMAT 2

COST ACCOUNT NO. WORK PACKAGE/ PLANNING PACKAGE NO.	AS APPLICABLE (TO DATE DATA)																		COST ACCOUNT TOTAL	
	LABOR HOURS			LABOR $			MATERIAL $			ODC $			OVERHEAD $			TOTAL $				
	BCWS	BCWP	ACWP	BCWS	BCWP	ACWP	BCWS	BCWP	ACWP	BCWS	BCWP	ACWP	BCWS	BCWP	ACWP	BCWS	BCWP	ACWP	BAC	EAC
SELECTED CA NO. WP NO. PP NO.																				
SUBTOTAL																				
ALL OTHER COST ACCOUNTS																				
SUBTOTAL																				
SELECTED CWBS ELEMENT TOTAL																				

NOTES:
1. Overhead $ need not be at work package or cost account level. Include these $ at the level where contractor allocates them.
2. Summarization to contract level continues on sample formats 3, 4, 5, 9, and 10.
3. Reference criteria checklist, Items II-3, II-4, II-6, and IV-3.
4. Data on "all other cost accounts" line may be broken out further.

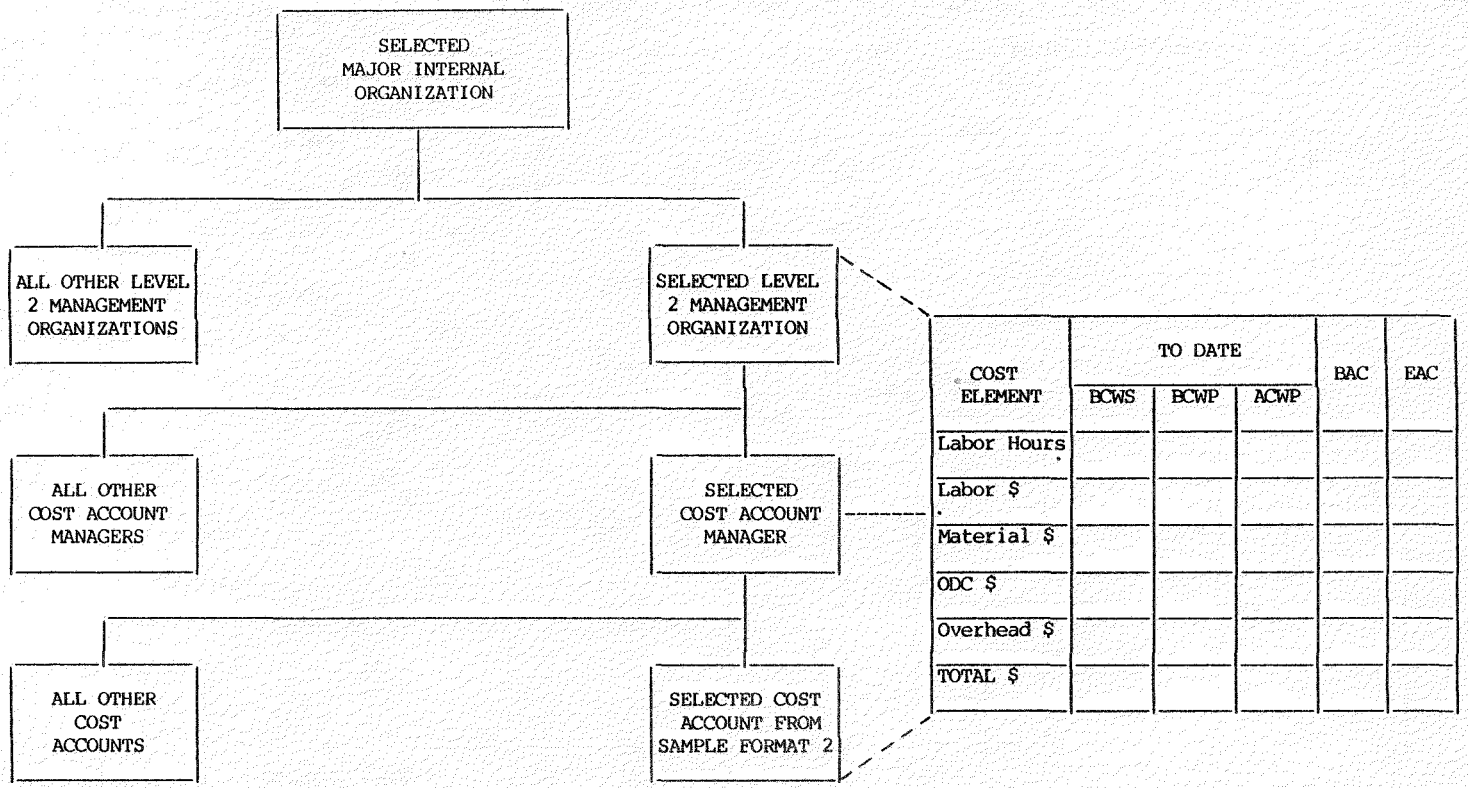
RECONCILIATION OF INTERNAL DATA
CWBS DATA
SAMPLE FORMAT 3



COST ELEMENT	TO DATE			BAC	EAC
	BCWS	BCWP	ACWP		
Labor Hours					
Labor $					
Material $					
ODC $					
Overhead $					
TOTAL $					

NOTES:
1. Reconcile BCWS, BCWP, ACWP, and BAC data for sample cost accounts to successively higher CWBS levels.
2. In summarizing to higher levels, various cost elements may need to be added. Overhead costs need not be at the cost account level. Include these costs at the level where the contractor allocates them to the CWBS.
3. Selected cost accounts should be the same as selected for the organizational summarization.
4. Reference criteria checklist, Items II-4, II-11, III-3, and IV-3.

RECONCILIATION OF INTERNAL DATA
ORGANIZATION DATA
SAMPLE FORMAT 4



COST ELEMENT	TO DATE			BAC	EAC
	BCWS	BCWP	ACWP		
Labor Hours					
Labor $					
Material $					
ODC $					
Overhead $					
TOTAL $					

NOTES:
1. Reconcile BCWS, BCWP, ACWP, and BAC data for sample cost accounts to successively higher organizational levels.
2. In summarizing to higher levels, various cost elements may need to be added. Overhead costs need not be at the cost account level. Include these costs at the level where the contractor allocates them to organizations.
3. Selected cost accounts should be the same as selected for CWBS summarization.
4. Reference criteria checklist, Items II-4, II-11, III-4, and IV-3.

RECONCILIATION OF INTERNAL DATA
SUMMARY LEVEL DATA
SAMPLE FORMAT 5

REPORTING LEVEL CWBS ELEMENTS	DATA ELEMENTS	MAJOR INTERNAL ORGANIZATIONS										
		ENGINEERING				MANUFACTURING				PROCUREMENT	OTHER	TOTAL
		LABOR	MAT'L	ODC	OH	LABOR	MAT'L	ODC	OH	SUBCONTRACTS		
Element 1	BCWS To Date											
	BCWP To Date											
	ACWP To Date											
	BAC To Date											
	EAC To Date											
Element 2	BCWS To Date											
	BCWP To Date											
	ACWP To Date											
	BAC To Date											
	EAC To Date											
Etc.												
SUBTOTAL OF REPORTED ELEMENTS	BCWS To Date											
	BCWP To Date											
	ACWP To Date											
	BAC To Date											
	EAC To Date											
OVERHEAD (NOT INCLUDED ABOVE)												
UNDISTRIBUTED BUDGET												
MANAGEMENT RESERVE												
BAC												
EAC												

NOTE:
1. Accomplish at summary CWBS levels.
2. Undistributed Budget and Management Reserve - Identify and add to internal budgets to reconcile to negotiated contract cost.
3. Discrepancies - Document, identify levels where occurred, and dollar amount; include cause if known.
4. Reference criteria checklist, Items II-11 and IV-3.

EVALUATION OF COST ACCOUNTS/WORK PACKAGES
ORGANIZATION (FOR EXAMPLE, ENGINEERING)
SAMPLE FORMAT 6

COST ACCOUNT NO. WORK PACKAGE/ PLANNING PACKAGE (1)	CLASSIFICATION OF WORK EFFORT (DISCRETE, LOE, APPORTIONED) (2)	START DATE		COMPLETION DATE		DURATION (7)	BUDGET (8)	REMARKS: COMMENTS ON WORK CLASSIFICATION DURATION (9)
		SCHED (3)	ACTUAL (4)	SCHED (5)	ACTUAL (6)			
CA No.								
WA/PP No.								
CA No.								
WA/PP No.								

NOTES:
1. Column 1, Selected cost accounts and associated work packages/planning packages from sample format 2.
2. Column 9, State if work is properly classified (column 2) and identify work in process BCWP formulas.
3. Graphically display measured effort data on formats 6a and 6b.
4. If work packages are subdivided by milestones, identify this in column 1 and complete the format with milestone information.
5. Reference criteria checklist, Items II-5 and II-8.

LENGTH OF COST ACCOUNTS/WORK PACKAGES
SAMPLE FORMAT 6A

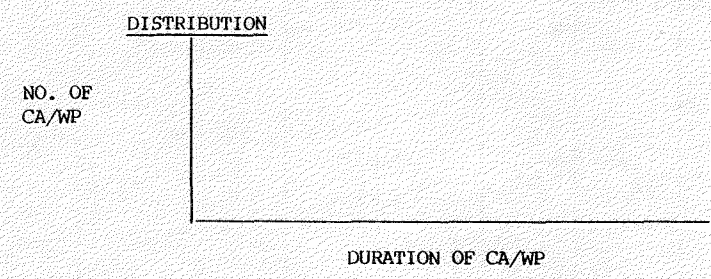
LONGEST COST ACCOUNT/WORK PACKAGE -

SHORTEST COST ACCOUNT/WORK PACKAGE -

RANGE (DURATION) -

TOTAL NUMBER OF COST ACCOUNTS/WORK PACKAGES -

MEAN (DURATION) -



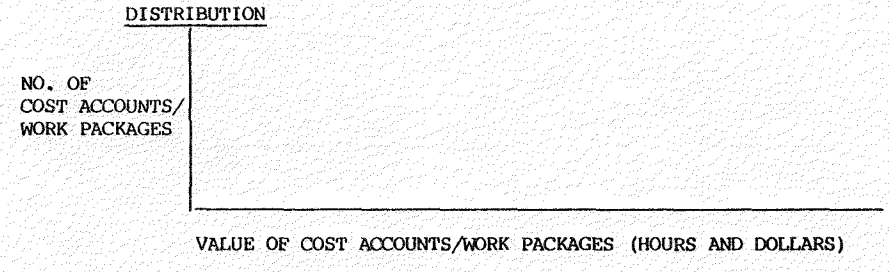
NOTES:
1. Graphically display measured cost account/work package time spans.
2. Use separate formats for cost accounts and work packages.
3. Reference criteria checklist, Items II-5.

VALUE OF COST ACCOUNTS/WORK PACKAGES
SAMPLE FORMAT 6B

LARGEST COST ACCOUNT/WORK PACKAGE -

SMALLEST COST ACCOUNT/WORK PACKAGE -
RANGE (VALUE) -

TOTAL NUMBER OF MEASURED COST ACCOUNT/WORK PACKAGES -
MEAN (VALUE) -



NOTES:
1. Graphically display measured cost account/work package values.
2. Use separate formats for cost accounts and work packages.
3. Reference criteria checklist, Items II-5.

CONTRACT INDIRECT COST EVALUATION
SAMPLE FORMAT 7

TYPE OF OVERHEAD POOL	DATA ELEMENT	MAJOR ORGANIZATIONS					
		ENGINEERING	MANUFACTURING	TOOLING	PROCUREMENT	ETC.	SUBTOTAL
FACILITIES	Budget (Total) Budget to Date Actuals to Date Variance						
FRINGE BENEFITS	Budget (Total) Budget to Date Actuals to Date Variance						
G&A	Budget (Total) Budget to Date Actuals to Date Variance						
ETC.							
TOTAL	Budget (Total) Budget to Date Actuals to Date Variance						

NOTES:
1. Format illustrates overhead planning budget to date, and actuals to date, by overhead pool and associated organization.
2. Data to accomplish this format should be derived from the lowest level at which contract indirect costs are planned and allocated to organizations.
3. Analyze differences on supporting worksheets.
4. Reference criteria checklist, Items II-9 and IV-2.

RECONCILIATION OF INTERNAL DATA (BUDGET REVISION)
REPORTING LEVEL CWBS ELEMENTS
SAMPLE FORMAT 8

CWBS ELEMENTS (1)	ORIGINAL BUDGET (2)	CHANGES		SUBTOTAL (2, 3, AND 4) (5)	CURRENT BUDGET	DIFFERENCE (6 - 5)	EXPLANATION OF DIFFERENCE
		CONTRACT (3)	MGT. RESERVE (4)				
COST ACCOUNT (FROM FORMAT 2)							
ALL OTHER COST ACCOUNTS (FROM FORMAT 2)							
CWBS ELEMENT TOTAL							
ALL OTHER CWBS ELEMENTS TOTAL							
OVERHEAD NOT INCLUDED ABOVE							
UNDISTRIBUTED BUDGET							
MANAGEMENT RESERVE							
TOTAL CONTRACT NEGOTIATED COST							

NOTES:
1. Reconcile current reporting level CWBS element budget to original budgets and compare values to contract target cost.
2. Analyze differences on supporting worksheets.
3. Reference criteria checklist, Item V-2.

RECONCILIATION OF EXTERNAL REPORTS TO INTERNAL DATA (CWBS)
SAMPLE FORMAT 9

CWBS	DATA ELEMENTS							
	CURRENT PERIOD			CUMULATIVE TO DATE			AT COMPLETION	
	BCWS	BCWP	ACWP	BCWS	BCWP	ACWP	BUDGET	ESTIMATE
SITE AND BUILDINGS								
Cost Performance Report								
Contractor's Internal Report								
Difference								
NSSS SYSTEMS								
Cost Performance Report								
Contractor's Internal Report								
Difference								
PROJECT SUPPORT								
Cost Performance Report								
Contractor's Internal Report								
Difference								
ETC								
ETC								
ALL OTHERS								
Cost Performance Report								
Contractor's Internal Report								
Difference								
TOTAL								
Cost Performance Report								
Contractor's Internal Report								
Difference								

NOTE:
1. Reports to be compared should cover identical periods.
2. CWBS elements shown in the first column are for illustrative purposes. Use applicable WBS reporting level items.
3. Analyze difference on a separate worksheet, trace each difference to its origin, and explain.
4. Reference criteria checklist, Item IV-3.

RECONCILIATION OF EXTERNAL REPORTS TO INTERNAL DATA (ORGANIZATION)
SAMPLE FORMAT 10

ORGANIZATION	DATA ELEMENTS							
	CURRENT PERIOD			CUMULATIVE TO DATE			AT COMPLETION	
	BCWS	BCWP	ACWP	BCWS	BCWP	ACWP	BUDGET	ESTIMATE
ENGINEERING								
Cost Performance Report								
Contractor's Internal Report								
Difference								
PROCUREMENT								
Cost Performance Report								
Contractor's Internal Report								
Difference								
QUALITY CONTROL								
Cost Performance Report								
Contractor's Internal Report								
Difference								
CONSTRUCTION								
Cost Performance Report								
Etc								
ETC								
TOTAL								
Cost Performance Report								
Contractor's Internal Report								
Difference								

NOTE:
1. Reports to be compared should cover identical periods.
2. Functional elements shown in the first column are illustrative. Use applicable contractor organizational structure.
3. Analyze difference on a separate worksheet, trace each difference to its origin, and explain.
4. Reference criteria checklist, Item IV-3.

RECONCILIATION OF EXTERNAL REPORTS
SAMPLE FORMAT 11

REPORT	NEGOTIATED CONTRACT COST	CUMULATIVE ACTUAL COST	ESTIMATE COST AT COMPLETION	EXPLANATION OF DIFFERENCES
Cost Performance Report				
Status Report - Funding Status				
Difference				
Cost Performance Report				
Cost Management Report				
Difference				
Status Report - Funding Status				
Cost Management Report				
Difference				

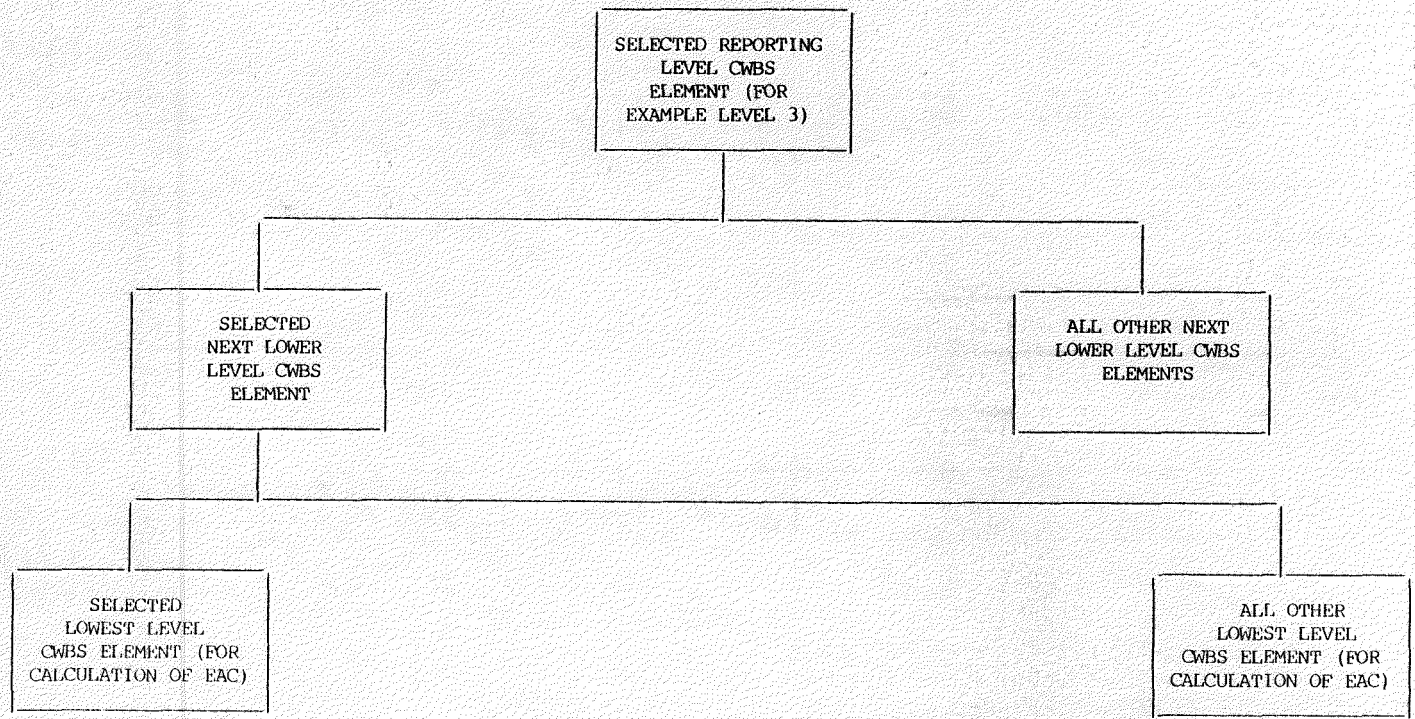
NOTES:
1. Ascertain that reports conform to current contractual requirements.
2. Reports to be compared should cover identical periods.
3. Reconcile for variation in report requirements (applicable FY funds in Status Report versus total contract authorized funds in CPR and CMR).
4. Analyze differences remaining after reconciliation on separate worksheet, trace to origin, and explain.
5. Reference criteria checklist, Item IV-6.

RECONCILIATION OF INTERNAL DATA
(ESTIMATED COST AT COMPLETION)
CONTRACT WORK BREAKDOWN STRUCTURE
SAMPLE FORMAT 12

CWBS ELEMENT, REPORTING LEVEL	CONTRACTOR INTERNAL ESTIMATED COST AT COMPLETION	ESTIMATED COST AT COMPLETION CPR	DIFFERENCE (3 - 2)	EXPLANATION OF DIFFERENCES
(1)	(2)	(3)	(4)	(5)
Subtotal				
Undistributed Budget				
Indirect Not Included Above				
Total				

NOTES:
1. Show reconciliation from lowest level CWBS element where EAC is calculated to reporting level on format 10.
2. Reference criteria checklist, Item IV-6.

RECONCILIATION OF INTERNAL DATA
(ESTIMATED COST AT COMPLETION)
SAMPLE FORMAT 13



NOTES:
1. Estimated cost at completion summarized from selected cost account (sample format 2) to selected CWBS element on format 8.
2. Reference criteria checklist, Item IV-6.

ATTACHMENT 3

READINESS ASSESSMENT CHECKLIST
BY AREAS OF RESPONSIBILITY

Total Program Responsibilities

1. Is the CWBS, as used by the contractor for internal control, in accordance with the one approved by project management?

2. Has the contractor extended the CWBS in an acceptable manner?

3. Do internal contractor statements of work support the contract statements of work?

4. Are the CWBS, task authorizations, budgets and schedules properly integrated?

5. How is forward planning monitored?

6. What is the role of the project office in systems operation? How does it interact with the functional organizations?

7. How is the performance measurement baseline established and maintained?

8. Who is responsible for preparing reports submitted to DOE?

9. Is performance data used by project office personnel a summarization of data developed by the performing organizations and reflective of data reported to DOE?

Scheduling Responsibilities

1. Has the contractor established a master schedule to support established contract schedules?

2. In support of the master schedule, has the contractor established intermediate schedules in each organization?

3. Has the contractor established detail schedules that support the intermediate schedules in each organization?

4. Do the detail schedules reflect the start and stop dates of measured cost accounts/work packages?

5. Are the detail schedules maintained to reflect current and future work packages?

6. Are significant milestones identified in the schedules?

7. Are there adequate procedures governing schedule development, revision, and status reporting?

Revisions Responsibilities

1. Are interim budgets established in cost accounts within 30-60 days of work start on an authorized change?

2. Are the interim budgets updated to reflect current proposal estimates to the Government?

3. Are management reserve budget and the person(s) responsible for its control adequately identified?

4. Can the contractor formally identify changes in the management reserve account?

5. Is undistributed budget use identified to tasks and approximate time-frames?

6. Are changes in the undistributed budget adequately documented?

7. Are changes in cost account budgets (baseline) documented in a manner that will allow the contractor to justify these changes?

Functional Responsibilities (Engineering, Manufacturing, Construction, etc.)

1. Cost account investigation to determine:

   a. The development of the budget value (BAC).

   b. Time-phasing of the budget (BCWS).

   c. Identification of work packages, level of effort, and apportioned effort.

   d. Support of cost account budgets by work package/planning package budgets.

   e. Techniques for computing BCWP (earned value).

   f. Single organization responsibility for cost accounts/work packages.

   g. Relationship with work package managers.

   h. Degree of manager's knowledge of systems operation at this level.

   i. Systems training and documentation provided to managers.

   j. Adequacy of the analyses associated with variances that exceed thresholds.

   k. The formalization of variance analyses and their submittal to higher levels of management.

l. Integration of the cost account/work package timeframes with the formal detail scheduling system.

m. Identification of cost account budgets by cost element.

n. Technique for accounting for material (price and usage variances).

o. Organization responsible for material budgets.

p. Organizational responsibility for determining estimate at completion and frequency of updating.

q. Basis for EAC.

r. Types of reports furnished cost account managers.

2. What is the role of the functional manager in systems operation, e.g., scheduling, budgeting, etc.?

3. For what cost elements are functional managers responsible?

4. What functional performance reports are generated?

5. How do functional managers participate in variance analysis?

6. What role do functional managers have in the indirect cost system?

Material and Subcontract Management Responsibilities

1. How is material classified; e.g., vendors, controlled inventory, etc.?

2. Does the contractor store and control inventory in an acceptable manner?

3. Is Government-furnished equipment properly controlled in bonded stores?

4. Does the contractor use an acceptable technique for accumulating actual costs for materials?

5. Does the contractor's inventory documentation allow the tracing of equipment from receipt to injection into work in process?

6. Determine the acceptability of the contractor's technique for identifying excess material usage and price variance.

7. Do EACs reflect material commitments, as well as usage?

8. How is BCWS established and BCWP credit taken for material?

9. How is ACWP accumulated?

10. How are subcontracts managed?

11. How is subcontract performance data generated?

12. What reports are required of subcontractors?

13. How is subcontract data integrated into reports submitted to DOE?

Accounting Responsibilities

1. Is the accounting system acceptable to the cognizant auditor?

2. Is there a cost accounting disclosure statement?

3. Are there any problems with the statement?

4. Perform a selected reconciliation of reports: internal to internal to external (e.g., internal cost reports with each other and with the CPR).

5. Review indirect cost system procedures and operation (e.g., pools, rates, centers, frequency of updates, application to material/subcontracts, procedures, etc., if applicable, i.e., if an evaluation was not conducted within the last year). Is operation in accord with approved procedures?

ATTACHMENT 4

REVIEW AND SURVEILLANCE EVALUATION SUMMARY

I. GENERAL

Considering the uniqueness of each contractor's management control systems, as well as the uniqueness of individual project situations, it is considered inappropriate to provide specific guidance for DOE review of such systems in operation. Each contractor's systems must be evaluated according to the contract requirements. The information that follows, therefore, is intended for general guidance only.

Each element of the contractor's organization must have a logical work definition, work planning and responsibility assignment, and work authorization and work release system. The management control systems must have integrated scheduling, budgeting, and labor planning. In addition, it must be possible to trace, analyze, and control indirect costs and management reserve budget. The contractor must have a cost accumulation and material control system to collect actual costs which are then compared to the earned value for performance measurement and analysis. The most important uses of any management control systems are to define the work, establish a realistic plan for accomplishing the work, isolate variances from plan, identify and trace problems to their source, develop alternatives for corrective action, and assess the impact on at completion costs. A fundamental responsibility of the DOE project manager is to assure project status visibility and that reliable EACs are generated periodically. Thus, the purpose of any management control systems operation is to provide accurate and timely indications of actual performance as a basis for sound forecasts of end results. The major areas for review and surveillance are delineated below.

II. ORGANIZATION

The CSCSC organization category addresses the work definition and assignment and the integration of the planning, scheduling, budgeting, work authorization, and cost accumulation subsystems. The contractor is required to achieve full integration of these subsystems with each other, and with the CWBS and the organizational structure.

A. Work Definition and Planning

The work required to accomplish contract objectives must be based on only one CWBS constituting the framework within which the work is identified, scheduled, planned and controlled. Starting with the total contract, then proceeding with the contract line items, the work must be successively divided by the contractor so as to represent the manner in which work is to be performed, to the point where CWBS elements, cost accounts, and work packages are defined for planning and control of cost and schedule.

It should be determined whether work scope is within the framework of the CWBS, whether the responsibility for the work is clearly defined, and whether performance measurement can be accomplished for designated CWBS elements and organizational functions.

B. Work Responsibility Assignment

The contractor's organizational structure breaks out and indicates the personnel responsible for accomplishment of the work. The CSCSC requires that each segment of work be the responsibility of only one organization. To accomplish this, the WBS and organizational structure must be interrelated. This interrelationship may occur at any level, but it must occur at the level where performance of work is measured, normally the cost account level.

C. Work Authorization

Prior to work actually starting and as far in advance as practicable, the contractor's work authorization system must define the work to be done and formally assign it to the responsible organization. In addition, schedules and budgets should be established for all work at appropriate levels in the CWBS. Task authorizations, work orders, or other contractor's unique operational documents may be used.

Review and surveillance of the work authorization system should assure that specific work authorizations flow down to the proper CWBS element and functional organizations responsible for work performance and that the work authorization system provides a framework for properly accounting for all costs.

D. Subcontracting

Subcontracting may constitute a substantial portion of contract costs. Review and surveillance of this area should address planning of requirements, budgeting, scheduling, accounting, and performance measurement for subcontracts.

III. PLANNING AND BUDGETING

A. Scheduling

The CSCSC require that the contractor maintain a schedule plan which describes the sequence of work and identifies the interdependencies required for accomplishing the contract work. They also require that the contractor's scheduling system be properly integrated with both work authorization and budgeting systems at the cost account level. Further, the contractor must show planned and actual status of the contract effort performed by functional units within the organization. Analysis of the scheduling system should be performed to determine that planned and actual status is maintained, that the scheduling system is properly integrated with the budgeting and work authorization systems, and that it is formal, complete, and consistent.

It should be ascertained that the contractor has scheduled work properly to meet contractual requirements. Particular attention should be paid to proper time phasing of tasks, traceability of schedules, and proper selection of milestones. The ability of the contractor to accomplish the work within the contractually established timeframe should be assessed.

B. Budgeting

As work is progressively defined in greater detail, budgets for the planned work is assigned. Budgets may be stated in dollars, labor-hours, or other measurable units. No specific technique is required, but all work must receive a budget. The assignment of budgets to scheduled segments of work produces a time-phased budget against which actual performance can be compared. The establishment, maintenance, and use of this budget baseline is a fundamental aspect of performance measurement.

C. Management Reserve Budget

The CSCSC permit the establishment of a management reserve budget which is that portion of the contract budget withheld for management control purposes rather than identified with the accomplishment of a specific task or set of tasks. The contractor is required to maintain adequate identification of, and controls for, the management reserve budget. While such budget may be established at various levels, it is not to be included within the performance measurement baseline because this would distort performance measurement. When management reserve is applied, it is then included in the performance measurement baseline. The management reserve budget does not include undistributed budget. Budget is "undistributed" only until it can be identified to both an organization and a WBS element.

Changes in management reserve budget can provide an indication of contract status. Management reserve activity furnishes visible documentation of the contractor's understanding and performance of the contractual work requirements. Frequent or extensive use of the management reserve budget may indicate trouble spots or a rearrangement of work requirements. Detailed guidance on analysis of management reserve budget is provided in the "DOE CSCSC Contractor Reporting/Data Analysis Guide."

IV. ACCOUNTING

A. Cost Accumulation

The CSCSC basically require that BCWS, BCWP, and ACWP be summed directly from the cost account level up through both the CWBS and the functional organization structure to the contract level by cost element. After indirect costs are accumulated and allocated, they are applied at the level selected by the contractor for management control. They too must summarize from the applied level to the contract level without further allocation.

B. Material Accounting

The contractor's method for recording direct costs for material, either on an applied or other acceptable basis, must facilitate performance measurement.

The contractor's material accounting system should provide for:

- o Accurate cost accumulation and assignment of costs to cost accounts in a manner consistent with the budgets, using recognized, acceptable costing techniques;
- o Determination of price variances by comparing planned versus actual commitments;
- o Cost performance measurement at the point between receipt and use that is most suitable for the category of material involved, but no earlier than actual receipt of material;
- o Determination of cost variances attributable to the excess usage of material;
- o Determination of unit or lot costs when applicable; and
- o Full accountability for all material purchased for the contract, including the residual inventory.

In addition, the contractor should be able to account individually for high value or critical material, purchased parts, and subcontracted items.

The contractor is required to maintain records of outstanding contract commitments for material. A methodical and timely review of material commitments versus budgets is extremely important. Timely determination of price and usage variance of material is essential to effective control of costs. By comparing commitments or expenditures, or both, with material budgets, material cost variances are available long before issuing the material into work in process, giving management greater reaction time. When the variances indicate that material costs will exceed the budgets assigned, the contractor should reflect these differences in a revised estimated cost at completion.

V. ANALYSIS

A. Variance Analysis

Since the cost account is usually the level at which variance analysis is conducted and the level at which internal performance measurement is required by the CSCSC, the reporting and accounting summarization process must begin at this level and extend up through both the CWBS and the contractor's functional organization structure. The isolation

of negative and positive variances also occurs at this level and provides the basis for variance analysis. This does not preclude measurement and control at lower levels.

B. Estimated Cost At Completion (EAC)

The contractor is required to develop periodic estimates of projected costs at completion using all available information. The EAC should consist of actual costs to date plus latest revised estimates for all remaining work. Price variances applicable to material commitments should be reflected in the EAC, and the EAC should be reconcilable to the contractor's external reports.

Although monthly reports to DOE include the contractor's current EAC, it should be recognized that major variances usually do not develop in a month's time and may be the result of many relatively small variances over a period of many months.

When EACs indicate that cost and schedule targets are in jeopardy, timely actions by contractor and DOE project management are required. After a contractor revises an EAC, and at other appropriate times; e.g., when there is an unchanging EAC over a lengthly period of time or particularly when cost and schedule variances are significant, a thorough and coordinated evaluation of the EAC should be made by the project office in conjunction with the cognizant auditor. Whenever a substantial change is reported or otherwise indicated, the analysis should be designed to determine whether the new estimate is reasonable, whether the change should have been recognized earlier, and, if so, what changes to the management control systems may be necessary to prevent similar surprises in the future.

VI. REVISIONS AND ACCESS TO DATA

A. Incorporating Changes

Because of the inherent uncertainty in the design and construction of many of DOE's projects, there are bound to be contractual modifications and internal replanning actions.

Changes may be due to:

- A change in the contractual scope of work;
- The final negotiated price for authorized work differing from that estimated and budgeted;
- Replanning to accommodate schedule changes or other factors that may have caused the original plan to become unrealistic; and

- o Transfer of budget from one WBS element or organization to another provided that corresponding work is also transferred.

The CSCSC require that contract changes be processed expeditiously and incorporated in a timely manner and that authorized unpriced work be planned and controlled as if it were definitized work.

B. Baseline Integrity

To maintain a meaningful performance measurement baseline, the contractor's management control systems must be capable of incorporating authorized changes expeditiously and in a coordinated manner so that all documents relating to affected elements reflect the change. Also, disciplines must be present to avoid unacceptable budget transfers or changes. Although internal replanning does not require contractual action, it may impact upon the performance measurement baseline.

VII. INDIRECT COSTS

A. General

Indirect costs are a major portion of the total costs of any contract. It is imperative, therefore, that review and surveillance include that portion of the contractor's management control systems which controls indirect costs. Many aspects important in the review and surveillance of direct costs are of equal concern regarding indirect costs. These include the proper placement of responsibility, realistic planning and budgeting, periodic variance analysis, and proper accounting for costs, both past and projected.

B. Review Questions

Analysis of a contractor's management of indirect costs should be performed periodically. Questions requiring answers might include the following:

1. Are indirect cost pools clearly identified and is control responsibility assigned to managerial positions in a logical manner?

2. Are indirect costs planned and budgeted on a time-phased basis coinciding with established accounting periods?

3. Are indirect budgets established on a facility-wide basis commensurate with firm and potential business?

4. Are the facility-wide indirect budgets updated in a timely manner to reflect the realization or nonrealization of potential business and/or changes in the planning base?

5. Are indirect costs and variances from budgeted amounts analyzed by management personnel at the proper level and corrective action taken in a timely manner when necessary?

6. Do the indirect rates used to compute the contract estimates-to-complete properly reflect historical experience, economic escalation, anticipated business volume, and appropriate financial planning for the period of contract performance?

7. Are projected indirect rates revised in a timely fashion to reflect changing workload projections and other factors to provide an accurate EAC?

ATTACHMENT 5

DEMONSTRATION AND ACCEPTANCE REVIEW REPORTS

I. GENERAL INFORMATION

The demonstration review report is prepared by the review team to document its findings and recommendation for validation or acceptance of the contractor's management control system. It will also be used by project management, DOE on-site representatives, and contractor personnel who will be providing surveillance, performing system maintenance, correcting deficiencies, settling controversies on operation, etc. The report is particularly important in conducting subsequent application reviews. It should be prepared carefully and properly. The quality of the report is usually taken as a reflection of the review team performance during the review cycle. Preparation of the report helps assure that a comprehensive review has been conducted. The requirement to answer a specific checklist item in writing may lead to additional investigation to erase any doubts. Prime considerations in preparing the report are:

- o It should document completely and accurately how the contractor's systems comply with the CSCSC,
- o It should present an orderly basis for effective review by a reader with limited or no knowledge of the specific management control systems, and
- o It should be clear and concise.

II. REPORT CONTENTS

The report consists of three parts: Executive Summary, Detailed Findings, and Exhibits. The parts are assembled from the following content paragraphs according to the format discussed in paragraph III, below:

A. Executive Summary

1. Purpose

   Discuss purpose of report, requirement for review, contractor involved, dates of review, report contents, use of report, and any other pertinent introductory comments.

2. Background

   Describe briefly the events relating to the contractor's implementation of the CSCSC and the reviews relating thereto. Also, identify the contract purpose, type, duration, amounts (target cost or mutually agreed-to target values, etc.), the project being supported, and the cognizant DOE project management.

3. Scope

Identify the specific location which is the subject of this review, i.e., division, company, plant, etc., and the functional organizations such as engineering, manufacturing, quality assurance, etc., included in the review. Also, discuss whether the review is related to engineering, construction, or production contracts and if the systems are restricted to the specific contract or are used throughout the facility.

4. Review Process

Describe the approach taken, i.e., "CSCSC" or "functional." Areas not operational should be discussed and method of review provided; for example, the method of processing contract changes may have to be based on a check of procedures because a contract change had not been executed at the time of the review. Team members and their associated responsibilities should be identified in this section. The "Team Signature Page" should also be part of this section. Each team member should sign to indicate agreement with the Findings and Recommendations.

5. Findings

Summarize the information contained in the Detailed Findings (paragraph B, below). This section is meant for use by DOE and contractor management who need only a general overview of the Detailed Findings.

6. Recommendations

Recommend necessary corrective actions to achieve compliance. The recommendations should not delineate specific methods to correct deficiencies, but should identify areas requiring correction. Observations or improvements suggested to enhance the systems can be noted here, but should be identified separately from corrective actions necessary to comply with the CSCSC. If applicable, summarize the deficiencies identified in the Findings and include a recommendation of the necessity for redemonstration. After successful redemonstration, this portion of the section may be deleted. The report is considered to be in draft form until all noncompliances are corrected by the contractor and the review team can recommend validation or acceptance.

7. Conclusions

Include the overall evaluation of the systems reviewed as to their compliance with the CSCSC. Reference should be made, when applicable, to the supporting evidence in the Findings or Recommendations sections. The acceptance statement should specifically identify the systems demonstrated and whether they are used for development, construction, etc.

B. DETAILED FINDINGS

Address each of the CSCSC categories in sufficient depth to explain systems compliance. It should state each criterion, describe how the management system complies with the criterion, and be supported by exhibits to illustrate and prove the compliance. The subparagraphs under each criterion should address the checklist item contained in the criteria checklist. For example, subparagraph I.1.a. would address "Is only one CWBS used for the contract?" A subparagraph should directly relate to the item. Avoid superfluous information and the tendency to restate the same information over and over in different subparagraphs.

The narrative may be supported by or relate to exhibits. However, the narrative must be sufficiently thorough so that it would not be necessary for the reviewer to turn to the exhibit to understand why it is there and what it portrays. The narrative should be able to stand by itself, but exhibits cannot stand alone. The narrative should state explicitly what the reader should look for in each exhibit and how the exhibit proves that the requirement is met. Generally, the number of exhibits should not exceed those necessary for understanding how the contractor's systems comply (or do not comply) with the CSCSC.

When it is necessary for the contractor to redemonstrate a deficient area, the deficiencies are to be identified in the appropriate subparagraph under the heading "Deficiency." After successful redemonstration, the contractor's action should be described under the heading "Corrective Action" directly below the applicable "Deficiency." Until successful redemonstration, the report is considered to be in draft form and should be identified as such.

C. EXHIBITS

The exhibits will include those formats and procedures called for in the criteria checklist, and will be prepared as follows:

1. Exhibits must be completely legible. Do not reduce them merely to avoid foldouts and thereby reduce legibility. Foldouts are entirely acceptable when they will provide clearer, more legible exhibits.

2. Exhibits should be annotated and marked to highlight the specific element(s) of information and to identify the trail in support of the related narrative.

3. Exhibits should be placed at the end of the report, and be numbered consecutively without regard to the CSCSC category to which they relate.

4. Exhibits should be from the same timeframe, and, where feasible, from the same branch of the CWBS. If more than one exhibit

purports to show a particular value and the value differs between exhibits, an explanation should be offered to substantiate the different values and the exhibits cross referenced accordingly.

5. Exhibits must be consistent. The data selected for traceability purposes should be used consistently in reporting on the various categories of the CSCSC.

6. Exhibits must be complete, or an explanation provided. If, for example, an exhibit requires a report that is not available at the time of the review, this should be noted in the narrative.

7. Exhibits must portray "real data", except when used to reproduce a part of directives, procedures, etc.

III. REPORT FORMAT

Based on the contents above, the typical demonstration review report would have the following format:

Table of Contents

Index of Exhibits

List of Acronyms (if used)

A. Executive Summary

1. Purpose
2. Background
3. Scope
4. Review Process
5. Criteria Checklist
6. Summary of Findings
7. Recommendations
8. Conclusions

B. Detailed Findings

1. Organization
2. Planning and Budgeting
3. Accounting
4. Analysis
5. Revisions and Access to Data

C. Exhibits

IV. SUGGESTIONS FOR EFFECTIVE REPORT PREPARATION

The team chief is responsible for the overall report effort, but the active support of all team members is essential. Reading, correlating, and

editing the team write-ups, in addition to performing other responsibilities, may place an excessive burden on the team chief. If not planned properly, writing of the report may be exceedingly difficult. Suggestions to expedite the report preparation and to make it more effective include the following:

A. Assure Contractor Support

Since the report is prepared on-site, the contractor should play an active role in the report preparation. It is essential that the contractor supply adequate typing support to expedite the report writing. Also the contractor being in the best position to know data sources, to obtain exhibit preparation assistance, etc., should be actively involved in exhibit preparation. The key contractor personnel for this support should be identified and all requests, follow-up, etc., should be channelled through these personnel.

B. Establish An Administrative Process

Once the team starts writing, a method to monitor and control the write-up flow (i.e., editing, typing, etc.) and exhibit preparation should be established. Use of logs for this purpose is helpful. For example, the headings in the Write-up Log could be:

Checklist Item	Assigned To	Edited	Team Chief Review	To Typing	Status Draft	Status Final
I.1.a	J. Doe	1/3/86	1/3/86	1/3/86	1/7/86	1/8/86

C. Assign Responsibilities

The team chief may assign various responsibilities associated with report preparation. For example, certain members may be assigned to draft the write-up of a CSCSC area. This requires reviewing, editing, and consolidating the individual inputs submitted. In other cases, individual checklist items may be assigned to selected individuals. In addition, team members may be assigned such tasks as editor, write-up monitor, exhibit monitor, typing coordinator, etc.

D. Advance Preparation

The report may be expedited by drafting the "Purpose", "Background", "Scope", and "Review Process" sections prior to the review. After a successful readiness assessment, the contractor may be requested to become familiar with the formats called for in the checklist and to initiate their preparation prior to the Demonstration Review. These can then be verified and put in final form during the review.

E. Exhibit Tips

The number of exhibits should generally not exceed those needed for demonstration of compliance with the criteria checklist. "Nice-to-have"

exhibits should be omitted. Avoid redundant exhibits. One exhibit; e.g., a cost account plan, can be referenced to substantiate a variety of budgeting, scheduling, and other review purposes, and there is no need to use two copies of the same exhibit simply because it is referred to in two different CSCSC categories. Including an entire document; e.g., an entire directive or series of charts, or copy of every different form used for a specific purpose; e.g., work authorization, may not be necessary. Only one or two pages or a sample may suffice. One means to expedite exhibit processing is for the team chief to select, with contractor coordination prior to the review, a prearranged set of interrelated exhibits; e.g., all system documentation on one cost account to include planning, scheduling, variance analysis, etc. This set serves as the standard for most exhibit uses. For example, a particular cost account plan may be a designated exhibit and when a team member desires to emphasize a point by referring to a cost account plan, the designated exhibit would be referenced. This procedure does not preclude team members from obtaining cost account plans to use in documenting a finding. However, in the write-up, the designated exhibit would be cited unless the specific reference was unique.

F. Writing Tips

The team chief may identify a list of acronyms or abbreviations to use in the write-ups. Otherwise, the variety and number used by the team may make the report confusing to a reader.

A specific format for the write-up is helpful. For example, each CSCSC item with identifying number (e.g., I.1.a) may be pretyped as the heading on a page. This assists tracking of write-up and saves time for the writer. Word processing equipment can be helpful in preparing the draft and final version of the report.

Before beginning to write, make sure that all information in the form of activity and problem records and exhibits have been assembled. It is helpful also to remember 10 principles of clear writing:

- Keep sentences short;
- Prefer the simple to the complex;
- Use familiar words;
- Avoid unnecessary words;
- Use action words;
- Write like you talk;
- Use terms your reader can picture;
- Know your readers;
- Make full use of variety; and
- Write to express not impress.

As further assistance several good examples of detailed finding write-ups are included in paragraph VI.

As a team member, when you submit a write-up, be sure it represents your best work. Ask yourself if you would be willing to sign this work and have it carry your name in the final report.

V. SUGGESTED OUTLINE FOR AN ACCEPTANCE REVIEW REPORT (MODIFIED IMPLEMENTATION)

A. Introduction

Discuss scope of contract, contractor and location, contractual basis for the modified CSCSC requirements, requirement for Acceptance Review, and the dates of the review. Identify the contract number, contract type, award date, period of performance, and original and current negotiated cost. Cover any other pertinent background material or introductory remarks.

B. Acceptance Review Process

Identify the review team members and their review responsibilities. Describe the scope of the acceptance review and the conduct of the review.

C. Acceptance Review Findings

Address the review of the management control systems in sufficient depth to explain systems operation and identify any unique systems characteristics based on the modified CSCSC implementation. Findings should be structured to speak to each major CSCSC category and preferably to each applicable CSCSC. The narrative should be supported by appropriate exhibits depicting, at a minimum, the contractor's organization, CWBS, systems integration, and the reconciliation of internal data (BCWS/BCWP/ACWP/BAC/EAC) from the cost account level to the cost performance report. If available, flow charts showing systems operation are desirable as supplementary exhibits.

D. Recommendations

State whether or not the review team recommends that the systems be accepted for the specific project. Identify any deficiencies requiring contractor corrective action to achieve acceptance, and describe the contractor's plan for accomplishing the actions. Suggest any operational improvements for contractor consideration.

E. Conclusions

State the review team conclusions as to the acceptability of the systems.

F. Systems Surveillance

Cite the contractor's documentation describing the accepted systems and the agreements relative to processing changes. Describe the

project office plan for systems surveillance (including participation of any on-site personnel) and the contractor's plan for internal surveillance. Identify any areas of systems operation to be emphasized during surveillance.

G. Exhibits

An exhibit should be included which indicates the CSCSC which were waived and/or accepted but which would require systems revision or change under full implementation requirements. Other exhibits should be included as indicated in the report.

VI. WRITE-UP EXAMPLE FOR DEMONSTRATION REPORT DETAILED FINDINGS

A. Example 1

PROVIDE FOR INTEGRATION OF THE CWBS WITH THE CONTRACTOR'S FUNCTIONAL ORGANIZATION STRUCTURE IN A MANNER THAT PERMITS COST AND SCHEDULE PERFORMANCE MEASUREMENT FOR CWBS AND ORGANIZATIONAL ELEMENTS.

1. Is each cost account assigned to a single organizational element directly responsible for the work and identifiable to a single element of the CWBS?

   YES. Each cost account is assigned to a single responsible organization and CWBS element as shown in Cost Account Responsibility Matrix, Exhibit 1.2.a(1). The PMS design and operation at (Contractor) prohibits a cost account from being assigned to more than one organization or CWBS element. Cost account establishment is controlled by the project manager. Cost accounts can only be planned upon receipt of a planning project directive from the project manager. The project manager has delegated planning approval authority to systems managers who may approve cost account planning within their assigned systems. Once a cost account is established, any replanning that affects the authorized scope, budget, or schedule requires the systems manager's approval.

B. Example 2

ESTABLISH AND MAINTAIN A TIME-PHASED BUDGET BASELINE AT THE COST ACCOUNT LEVEL AGAINST WHICH CONTRACT PERFORMANCE CAN BE MEASURED. INITIAL BUDGETS ESTABLISHED FOR THIS PURPOSE WILL BE BASED ON THE NEGOTIATED TARGET COST. ANY OTHER AMOUNT USED FOR PERFORMANCE MEASUREMENT PURPOSES MUST BE FORMALLY RECOGNIZED BY BOTH THE CONTRACTOR AND THE GOVERNMENT.

1. Are budgets assigned to cost accounts (and budget planning packages as appropriate) maintained as the performance measurement baseline?

YES. (Contractor) has established and is maintaining a performance measurement baseline (PMB) against which contract performance is measured. Initial budgets were established for this purpose based upon the (Contractor) cost estimate for its portion of the August 1975 project revised cost estimate. The CPR of (Contractor) as of December 1977 reported a PMB of $309,720,000, undistributed budget (UB) of $243,000, management reserve (MR) of $168,000, and contract budget base (CBB) of $310,131,000 (Exhibit II.3.a(1)). Reconciliation of differences ($26,000) between the BAC in the CPR ($309,720,000) and in the internal reports ($309,694,000) as shown in Exhibit III.3.a(1) is contained in Exhibit II.3.a(2). All changes to the CBB are traceable and documented in the contract log and master baseline log. Budget values entered on the contract log and master baseline log are identical to dollar amounts on the approved cost account planning task description sheets. Estimated amounts for authorized undefinitized work are entered into the contract log and master baseline log, and retained there until the work is definitized. Upon agreement, the CBB, PMB, MR and UB are adjusted to reflect results of the discussions.

The PMB is that part of the CBB allocated to responsible organizations (sections, subsections, units) for the accomplishment of a specific set of tasks. The PMB is also a time-phased budget plan against which performance is measured, and is the sum of all budgets within the cost account planning-task description sheets. Since the establishment of the initial PMB, CBB changes have occurred which have been apportioned to PMB, MR, or UB, and are contained in the master baseline log.

A Cost Account is defined in the (Contractor) Performance Measurement System (PMS) as the intersection of the organization structure with Level 7 of the CWBS, i.e., work agreement line items. Each cost account represents a defined work scope at the level where work is assigned to a responsible organization, generally the unit level. The person in the (Contractor) organization assigned responsibility for this intersection is the cost account manager (CAM). The cost account has no restriction on its duration; however, its start and end dates are consistent with the WBS element baseline schedule plan and represent the time period during which the organizations are expected to complete their work on the WBS element. Cost Accounts are subdivided into work packages and planning packages. The time-phasing of all cost account budgets is shown on cost account planning task description sheets which, in turn, constitute the PMB. Changes to cost account budgets are planned only if authorization is issued by the project manager using a project directive (Exhibit II.3.a(3)). Error corrections are reversed at any time.

All PMB, MR, and UB transactions are recorded in the master baseline log. When a budget change is authorized, the CAM receives formal notice on a project directive prepared by Project Integration and Control and issued by the project manager to complete new Work Package Detail Sheets and Cost Account Planning Sheets.

If the CAM determines that a budget increase for the new work is necessary and should be accommodated through the use of MR, he requests additional budget baseline from the system manager. After the system manager reviews the request, he may make a recommendation to the project manager who has final approval responsibility. If the request is disapproved by the project manager or system manager, the CAM is told why and what action he should take. If the request is approved, Project Integration and Control adjusts the master baseline log and provides a project directive to the CAM. The CAM then revises the work package detail and submits them for management review and approval.

C. Example 3

SUMMARIZE DIRECT COSTS FROM THE COST ACCOUNTS INTO THE WBS WITHOUT ALLOCATION OF A SINGLE COST ACCOUNT TO TWO OR MORE WBS ELEMENTS.

1. Is it possible to summarize direct costs from the cost account level through the WBS to the total contract level without allocation of a lower level WBS Element to two or more high level WBS Elements? (This does not preclude the allocation of costs from a cost account containing common items to appropriate using cost accounts.)

   YES. All direct costs are charged to a specific organizational component number and cost account number. The accounting system uses a hierarchical structure to summarize costs from the cost account level to the project level (where a project or "P" number is assigned for each work agreement). Summarizing the work agreements produces the subcontract's total. The hierarchical structure is created through the use of a reference number, e.g., the record for each cost account number contains a reference number field which is either a work agreement number or a project number.

   The review team followed the summarization of direct costs from the cost account level through the WBS to the subcontracts level (Exhibit III.3.a(1)). This summarization demonstrates that there was no allocation of lower level WBS elements to two or more higher level WBS elements. The review team detemined that the ACWP figures for work agreement 507 as shown on Exhibit III.3.a(1) were those recorded in the (Contractor) cost accounting records and reconcilable to the external reports issued by (Contractor) to DOE Project Office, and SAN-DOE. The above determinations resulted from the review team performing the following steps:

(a) Traced the ACWP figures for WA 507 (P2595) to the (Contractor) cost accounting systems Management Information System (MIS) reports.

(b) Traced the ACWP figures for WA 507 in the MIS reports to the subledger of the (Contractor) general ledger.

(c) Traced the ACWP figures for WA 507 to those appearing in the cost performance report as of the December 1977 CPR.

(d) Traced the cumulative total ACWP for the December 1977 CPR for WA 507 to the (Contractor) project cost reports and related records for FY 1974 through FY 1977 plus the first quarter of FY 1978.

D. Example 4

IDENTIFY ON A MONTHLY BASIS IN THE DETAIL NEEDED BY MANAGEMENT FOR EFFECTIVE CONTROL, BUDGETED INDIRECT COSTS, ACTUAL INDIRECT COSTS, AND VARIANCES ALONG WITH THE REASONS THEREFORE.

1. Are variances between budgeted and actual indirect charges determined and analyzed at the level where responsibility for control of such costs is assigned (indirect pool, department, etc.)?

YES. Variances between budgeted and actual indirect costs are identified and analyzed at the department, section and subsection levels.

The overall responsibility for all indirect expenses resides with the department general manager. He in turn holds each level of functional management down through the subsection level responsible for the establishment of indirect budgets and control of the expenditures against these budgets. The overall responsibility for monitoring the indirect cost area has been assigned to the finance section and the technology and special projects (T&SP) section. T&SP is responsible for managing the budget process and indirect funds allocated to overhead program authorizations (OPA), which includes obtaining the required planning and monitoring expenditures against the individual OPA.

Indirect cost expenditures are controlled on the basis of: (a) indirect cost budgets and analysis of variance from budget; (b) managerial responsibility for specific areas of cost accountability; (c) monthly reviews of each organizational component's overhead rates and quarterly reviews of the department's overhead and General and Administrative rates; and (d) a formal structure of accounts with consistent application of costs.

Each month, subsection Cost Incurred Statements (Exhibit III.5.b(1)) are reviewed by finance to determine if proper charging has been made (direct vs. overhead) and to identify

significant variances in costs from budget. Subsection and section actual overhead rates are calculated and compared to budget. The results of these reviews are summarized in a letter from finance to each section manager with distribution to each subsection manager. Finance also issues to the department general manager and his staff a monthly analysis of operations including indirect cost analysis. This analysis includes reviews of section overhead rates, unapplied (indirect) personnel and expenditures against authorization of indirect cost programs.

E. Example 5

CHANGES TO THE PERFORMANCE MEASUREMENT BASELINE WILL BE INTERNALLY DOCUMENTED. TIMELY NOTIFICATION OF THESE CHANGES WILL BE PROVIDED TO THE PROCURING ACTIVITY THROUGH PRESCRIBED PROCEDURES.

1. Are changes to the performance measurement baseline (cost account) made as a result of contractual redirection, formal reprogramming, or the use of management reserve, properly documented and reflected in the cost performance report?

   YES. The PMB consists of the time-phased sum of all the cost account budgets and is the basis for performance measurement reporting in the CPR. All changes to the PMB are made as a result of project control approval or direction, formal reprogramming, or the use of MR and UB, and are documented in the master baseline log maintained by cost management (Exhibit V.5.a(1)). Changes to the baseline are implemented by issuance of a new or revised project directive by the project manager. The changes that occur during the month are summarized and reported to the DOE Project Office in the CPR. Changes are explained in the detailed backup to Format 3 of the CPR (Exhibit V.5.a(2)).

ATTACHMENT 6

REVIEW DIRECTOR DUTIES AND RESPONSIBILITIES

I. PREAWARD ACTIVITIES

A. Participate in solicitation development by advising on:

1. Interpretation of CSCSC solicitation and contractual clauses.

2. Relationship of CSCSC requirements to URS requirements.

3. Development of project summary WBS.

4. Applicability of CSCSC to the solicitation.

B. Participate in bidders' briefing, if required, and brief:

1. CSCSC and related URS requirements;

2. Lessons learned from prior CSCSC implementations; and

3. The review and surveillance processes.

C. Participate as technical advisor during source evaluation, and:

1. Review contractors' responses regarding their management proposal, CWBS, plan for complying with the CSCSC, and reporting requirements;

2. Identify deficiencies, if applicable; and

3. Submit report to source evaluation board.

II. IMPLEMENTATION VISIT

A. Prior to the Implementation Visit:

1. Assist the DOE CSCSC Focal Point in selecting members for the review team;

2. Coordinate training of team members with DOE CSCSC Focal Point, if required;

3. Coordinate with contractor and DOE CSCSC Focal Point to determine if a CSCSC requirement is pending on any other contract. If other such activity is identified, coordinate review activities with the other concerned Government agency or DOE organizations;

4. Determine, in conjunction with team chief and contractor, an appropriate date for the initial visit; and

5. Prepare a briefing for the contractor on the review and surveillance processes.

B. During the Implementation Visit:

1. Introduce the team chief and identify the team members to the contractor, and have the contractor identify the key management personnel;

2. Assure that the contractor understands the CSCSC requirements and the review and surveillance processes;

3. Identify deficiencies found during preaward activity;

4. Review the current state of systems documentation and URS plans and reports preparation;

5. Have the contractor develop a CSCSC implementation schedule;

6. Ascertain dates for future visits and determine their scope;

7. Assure that the contractor's implementation plan for meeting CSCSC contract requirements is feasible;

8. Coordinate systems surveillance requirements with the appropriate project office representative and any on-site DOE representatives;

9. Debrief the contractor on the accomplishments of the visit; and

10. With the team chief prepare a visit report to document results and forward copies to the project manager and the DOE CSCSC Focal Point.

III. READINESS ASSESSMENT

A. Prior to the Readiness Assessment:

1. Ensure continuity of team membership; and

2. Support the team chief as required.

B. During the Readiness Assessment:

1. Review the contractor systems description and applicable operating procedures and provide comments to the team chief;

2. Conduct selective tests of contractor data and interview selected contractor personnel;

3. Determine if the CWBS has been adequately defined and organizational responsibility for the work identified;

4. Determine if the performance measurement baseline has been established;

5. Determine if the schedule baseline has been established;

6. Determine if detailed planning and budgeting have been completed by CWBS and by organizational element;

7. Provide guidance and/or instruction to team members, as required, in conjunction with the team chief;

C. After the Readiness Assessment:

1. Submit a report to the project manager and the DOE CSCSC Focal Point relating the activities accomplished, together with any discrepancies requiring correction;

2. Confirm with the team chief that the contractor has taken corrective action for previously identified discrepancies.

3. Assure that there are no other potential hindrances to starting the demonstration review as scheduled, and;

4. Review the team chief's plan for conduct of the demonstration review and submit comments to the team chief.

IV. DEMONSTRATION REVIEW

A. Prior to the review:

1. Ensure that the team's purpose and the team chief's position and responsibility are clearly defined both with respect to the contractor and any on-site Government representatives.

B. During the review:

1. Brief the team on personal conduct;

2. Ensure that the team understands its duties and responsibilities and that the schedule prepared by the team chief is adhered to;

3. Provide guidance and training to the team;

4. Participate in the briefing on the internal reports given by the contractor;

5. In conjunction with the team chief, determine how interviews will be scheduled;

6. Ensure that discrepancy, document, and exhibit processing is being maintained;

7. Assure that the review is conducted consistent with DOE policy for uniform application of the CSCSC;

8. Interview team members to ensure that their areas of responsibility were fully assessed and that substantiation of compliance was well formulated and clearly understood;

9. Review status of discrepancies and ensure that any discrepancy not satisfactorily corrected is understood by the contractor and that corrective action is being taken or planned;

10. If redemonstration of an area is necessary, request the contractor to develop a corrective action plan;

11. After review of this plan, tentatively schedule a visit to review correction actions;

12. Ensure that the team chief briefs on-site Government representatives and the contractor concerning the team's findings and recommendations, and subsequent responsibilities;

13. Thoroughly review team report submissions to ascertain that the review report is clear and accurately describes the conditions found;

14. Assist the team chief in preparing the exit briefings; and

15. Ensure that a file of review related documentation and the contractor's management plan containing the CWBS and systems description is maintained by the project office.

C. After the review:

1. Place the demonstration review report in coordination;

2. Coordinate preparation of a congratulatory letter to the Operations Office Manager from the Assistant Secretary, Management and Administration, certifying contractor compliance. Coordinate signature to memorandum and to formal certificate to be forwarded with memorandum for subsequent presentation to the contractor.

3. Coordinate preparation of a letter from the Director of Project and Facilities Management, and the CCO to the contractor certifying CSCSC compliance.

4. If a DOE validation visit is planned, coordinate details with the DOE CSCSC Focal Point, the team chief, and contractor; and arrange for the following:

   o A date for the visit and transportation and motel accommodations;

- A contractor briefing on the management control systems, with participation by managers from all levels;
- A short tour conducted by the contractor;
- A briefing on surveillance by the surveillance monitor; and
- A folder for the DOE representatives containing the agenda, validation certificate and memorandum, demonstration review report, and any other pertinent information.

ATTACHMENT 7

TEAM CHIEF DUTIES AND RESPONSIBILITIES

I. IMPLEMENTATION VISIT

A. Prior to the Implementation Visit:

1. Assist the review director in determining team qualifications and membership;

2. Assist the review director in determining training requirements;

3. Coordinate with the contractor the date of the visit;

4. Request the contractor present a briefing of his management systems, current implementation status, and future plans for complying with the CSCSC;

5. Arrange to have current systems documentation and reports available;

6. Notify appropriate team members of the visit date;

7. Coordinate arrangements for plant access, transportation, and motel accommodations for all concerned; and

8. Prepare jointly with the contractor an agenda for the visit.

B. During the Implementation Visit:

1. Introduce team members to each other, explain review operating procedures and team conduct, and assure that team members understand their responsibilities;

2. Identify available systems documentation and reports;

3. Review the current CWBS for reasonableness;

4. Identify and document any deficiencies disclosed as a result of the contractor's management system briefing and the implementation visit;

5. Review the contractor's implementation plan to ensure compliance with contract requirements;

6. In conjunction with the contractor and the review director, establish dates for future visits;

7. Obtain contractor agreement to provide necessary logistic support for these visits or identify alternative possibilities.

8. Identify to the contractor the documentation which will be required for the next visit; and

9. Assist the review director in debriefing the contractor.

II. READINESS ASSESSMENT

A. Prior to the Readiness Assessment:

1. Determine current status of open discrepancies, if any;

2. Ensure that team members have been sent a copy of the contractor's management control systems description and other related material;

3. Prepare a memorandum that assigns team members to areas of responsibility and establishes an agenda/schedule;

4. Ensure that team members have plant access for the visit period;

5. Arrange with the contractor for a briefing on the management control systems, how they comply with the CSCSC, and corrective actions taken or planned to correct previously disclosed deficiencies;

6. Arrange with the contractor to have a short facility tour; and

7. Ensure that the contractor has submitted, at a minimum, one cost performance report prior to the visit.

8. Review all checklist formats (see Attachment 6) with the contractor and arrange for their preparation at the demonstration review.

9. Establish the data reconciliation pattern to be used during the demonstration review.

B. During the Readiness Assessment:

1. Ensure that the team members understand what they are to do and the use of proper interviewing techniques (see Attachment 4).

2. Identify the cost accounts to be reviewed for the assessment;

3. Establish an interview schedule with appropriate functional and working level managers;

4. Ensure that the management control systems description and applicable operating procedures are thoroughly reviewed;

5. Review the internal data base that supports the cost performance report, and perform selective reconciliations;

6. Guide and instruct team members as necessary;

7. Keep the team members informed on the assessment's progress and results;

8. Identify discrepancies and ensure that the contractor understands the extent of the discrepancy and why it is a discrepancy;

9. Request the contractor to develop, if applicable, a fix-it plan, and in conjunction with the review director and the contractor, tentatively schedule a demonstration review;

10. Compile a mailing and telephone listing of all team members, key contractor personnel, and on-site Government personnel and provide a copy to all on the list; and

11. Prepare and present an exit briefing to the contractor, ensuring that all concerned on-site Government representatives and contractor management personnel are present.

C. After the Readiness Assessment

1. Submit a report to the review director, the project manager, and the DOE CSCSC Focal Point, covering the extent of the review, the discrepancies uncovered, the contractor's fix-it plan, the tentative dates for the demonstration review, and team recommendations, if any.

III. DEMONSTRATION REVIEW

A. Prior to the Demonstration Review

1. Determine the method of review (i.e., "CSCSC" or "functional") and develop the team member assignments and the review agenda to support the method selected;

2. Coordinate the review schedule with the review director (for a sample schedule, see Figure 9);

3. Assign tasks to team members with the review director's coordination;

4. Provide a copy of the team member assignments and review agenda to the contractor with a request for comments;

5. Determine the extent of corrective action taken as a result of the readiness assessment and inform the review director;

6. Request that the contractor provide copies of documentation and reports which will be required during review, ensuring that all data are for the same period;

7. Confirm the demonstration review date with the contractor;

8. Confirm each team member's availability for review duration;

9. Send a letter to all team members containing pertinent details on review conduct;

10. Ensure that plant access for team members is current; and

11. Confirm logistic support requirements with the contractor.

B. During the Demonstration Review:

1. At the start:

a. Conduct a short orientation briefing to the team members covering items such as:

(1) Do's and don'ts for team members;
(2) Interview techniques;
(3) Team assignments;
(4) The review schedule;
(5) Activity and records;
(6) CSCSC interpretation by the team chief/review director;
(7) Scheduling of interviews;
(8) Contractor interface;
(9) Discrepancy notification;
(10) Logistics;
(11) Working hours;
(12) Facility access;
(13) Company proprietary information; and
(14) Report preparation, i.e., administrative details, assignments, etc.

b. Arrange with the contractor a briefing on the internal and external reports used; and

c. Establish a log of discrepancies, including corrective action contemplated by the contractor, date expected to be fixed, etc., per the example below:

DISCREPANCY LOG

ITEM NO.	DISCREPANCY	FIX PLAN	SUBMITTED BY	EXPECTED FIX	ACTUAL FIX	CHECKED AND APPROVED BY

2. During:

   a. Assure that the management control systems description and operating procedures accurately reflect systems operation and comply with the CSCSC;

   b. Conduct interviews as required;

   c. Start writing the review report;

   d. Conduct periodic team meetings to determine status and to inform the team of progress;

   e. Keep the review director informed (by phone, if not present) of status, and discuss any discrepancies found;

   f. Review daily the activity and problem records (see figures A8-1 and A8-2 in Attachment 8) submitted by team members;

   g. Be sure that each discrepancy found is substantiated, and then brief the contractor on the discrepancy;

   h. Log each discrepancy and request the contractor's approach to corrective action;

   i. Monitor the status of team write-ups and format preparation;

   j. Interview team members as required; and

   k. Thoroughly review team members report submissions.

3. At the conclusion:

   a. Ensure that the discrepancies uncovered during the review are either satisfactorily corrected during the review period; or that the contractor understands what each discrepancy encompasses and that a firm fix-it date is established;

   b. Request that the contractor finalize a plan to correct any remaining noncompliant area within a reasonable period of time and tentatively schedule a redemonstration of the area;

   c. Prepare and present exit briefings to the DOE project management and the contractor to specifically relate team findings and recommendations and to introduce subsequent surveillance activities. All recommendations should be directed towards systems improvement with outstanding discrepancies substantiated so that the contractor is fully aware of the "what and why" of each discrepancy.

d. Close the exit briefings by defining post demonstration activity, including a schedule of events. Points to cover are the report coordination cycle, the DOE management visit, and the letter of validation or acceptance.

e. Ensure that all documents containing company proprietary information are clearly labeled;

f. Ensure that all pertinent material to be used for backup is boxed and shipped to the cognizant project office personnel;

g. Ensure that all team members have properly cleared the site or plant; and

h. Prepare a listing of mailing addresses and telephone numbers of team members, key contractor personnel, and key on-site Government representatives and provide a copy to all on the list.

C. After the Demonstration Review:

1. Ensure that team members agree with the findings and recommendations included in the report and ensure that the signature page is signed by all team members;

2. If the contractor is recommended for validation or acceptance:

a. Submit the demonstration review report to the review director for coordination;

b. Coordinate with the review director any comments he or she may have regarding the report;

c. If there will be a DOE management visit assist the review director in planning for it;

d. Accompany the DOE representative(s) on the visit; and

e. Ensure that the CCO has provided the contractor a copy of the demonstration review report.

3. If the contractor is not recommended for validation or acceptance:

a. Monitor the progress of the contractor's corrective actions and plan a visit for a review of the deficient areas; and

b. Coordinate surveillance requirements with project office and on-site Government representatives.

ATTACHMENT 8

TEAM MEMBER DUTIES AND RESPONSIBILITIES

I. INTRODUCTION

This attachment contains selected items with which team members should familiarize themselves in order to carry out their review responsibilities properly. To emphasize their importance, these items are also briefed by the team chief prior to a review's start. They include the following:

- o Operation Guidelines
- o Interview Techniques
- o Review Records

The first two items are informative in nature and provide guidance on your conduct as a team member during a review. The review records are suggested formats to be used to document team member daily review activity.

II. OPERATING GUIDELINES FOR TEAM MEMBERS

The following guidelines, patterned on a "Do"/"Don't" basis, establish how you, as a team member, should conduct yourself during a review.

DO:

1. Organize your work effort; have a plan.
2. Be inquisitive regarding all areas.
3. Use resources you know of to accomplish your job.
4. Interview contractor personnel, requiring them to demonstrate systems operation.
5. Fill out the activity and problem records promptly and completely and attach supporting documentation.
6. Keep the team chief informed and let him or her handle problems with the contractor.
7. Consider all contractor information as proprietary.
8. Adhere to the review schedule.
9. Substantiate systems compliance.

10. Assist in writing and preparing review reports to ensure report write-ups are clear, substantive, and supported by appropriate exhibits.

DO NOT:

1. Harass the contractor personnel or tell them what should be done.

2. Relate "how the review is going" to the contractor; this is the team chief's job.

3. Ask leading questions, such as "Is this how you do it?"

4. Request "nice to have" or redundant documents.

5. Judge the contractor on anything other than what is demonstrated during the review.

6. Expand the contract requirements beyond the CSCSC.

7. Get sidetracked by personal interests.

III. INTERVIEW TECHNIQUES

In general, the interview is conducted to gather information first hand. However, an interview should be directed to a definite purpose. To accomplish this pre-defined purpose, a team member must plan for the interview and must use effective interviewing techniques in its execution. The following guidance should assist in performing this important function.

1. Prior to the interview:

   a. Read and refamiliarize yourself with the CSCSC items with which you expect to be involved during the interview. Read the contractor's procedures before you go to the interview. If interviewing a manager of a cost account or function, familiarize yourself with the current status of the account or function by review of appropriate internal reports.

   b. Have available a list of specific questions you expect to ask during the interview. These questions should include (when appropriate to your purpose) the items in the criteria checklist, questions you may have about procedures, and questions regarding specifically how the interviewee does something. These last questions may be partially formulated before the interview, but it is likely that most of them will come spontaneously as a result of your conversation with the interviewee. Take documents with you which might be needed to amplify a given question, be needed to make a point, or which will be the subject of the interview.

c. When setting up the interview, first consider whether your subject should be discussed with "the working troops" or higher management levels, and from which organization. If you are having trouble with these considerations, ask the team chief, or explain the goals of the prospective interview to the contractor and let him assist you. Set up the interview as much in advance as possible and coordinate with the team chief. When setting up the interview, try to be as explicit as possible in explaining the subject to be discussed so that the interviewee is prepared for you. Consider whether you alone should be going on the interview, or whether or not the subject matter may be of interest to another team member. If so, go together.

d. Think the interview through in advance. Try to develop a clear idea of how you plan to conduct each stage of the interview, including what you can say, the sequence you plan to use to cover the areas of inquiry, and the specific information you want to obtain from the interview. Although most interviews will follow a basic pattern, each interview will have peculiarities because of the functional area and WBS elements involved and the individual being interviewed. Try to anticipate these peculiarities to avoid "thrashing around" during the interview.

2. During the interview:

a. In beginning an interview, recognize that interviewees may be on the defensive. It is essential that you put interviewees at ease and secure their cooperation. To do this, ensure that the time, place, and other conditions of the interview will be as informal as possible, and that there will be a minimum of interruption.

b. Introduce yourself and your subject. Then explain the basic objectives of the review and your purpose in conducting the interview. Make it clear to the interviewee what information you require. Assure him or her that your effort is not concerned with the individual, but with their function in systems operation. In establishing rapport, it is often helpful to open the conversation with simple questions on somewhat routine responsibilities to get him or her talking of well understood matters and then proceed to more complex matters.

c. Establish a level of communication. Try to determine the interviewee's familiarity with the technical aspects of systems operation. Phrase your questions so that they can be easily understood but do not "talk down" to the interviewee. Avoid alphabetical abbreviations, nicknames, and technical jargon unless you are sure both you and the interviewee understand it. Represent your background and knowledge honestly so the interviewee can adjust replies to your level of understanding. Structure your discussion and questions in such a manner that you

allow the interviewees enough "room" to discuss freely how he or she does it, without putting the words in his or her mouth. The best way to handle it is to be thoroughly prepared for the interview, think through your "strategy," and learn from your experience in the interview.

d. Take notes during the interview, preferably associated directly to prewritten questions. Ask for documents that are referenced during the course of the interview, if the documents represent demonstrated compliance or noncompliance, or when the subject being discussed is too complex to explain effectively without examples of documents, etc. Keep in mind your needs in documenting your work and what is expected as adequate evidence of your conclusions. Resist the temptation of asking for a copy of every document to which you are exposed. If documentation you request during the interview cannot be made available until after the interview, be sure to get a commitment concerning when it will be available.

e. In conducting an interview, remember that you are interested in functions, not individuals; therefore, you should:

- Avoid discussion of your personal opinions or judgments, other than when it is done deliberately, considerately, and discreetly as a technique of probing.

- Keep a leisurely pace and a pleasant manner throughout.

- Phrase your questions so they cannot be answered by yes or no. The objective is to get the interviewee to talk freely to you rather than merely answer your question. For example, ask how a certain task is done, not if it is done. In this manner, you can also determine if the task is performed in accord with the contractor's procedures.

- Allow the interviewee ample time to talk and collect his or her thoughts before speaking. The most valuable information often follows what may appear to you to be an embarrassing pause. You should talk, typically, less than 25 percent of the time during an effective interview.

- Give the interviewee the opportunity to appear at his or her best. Ask him or her to explain the function, and solicit an evaluation of the systems operation. When deficiencies are uncovered, avoid giving an impression of cross-examining the interviewee or of "witch-hunting." Be alert for any control techniques that the interviewee has developed that may be of value to others in the contractor's organization.

- Ensure you do not get sidetracked by your interviewee. Probe any line of thought which appears to be pertinent, but move quickly to the next question if the conversation moves into areas that are deemed irrelevant.

- o Should the interviewee's responses be unclear to you, express your lack of familiarity or understanding at once. Do not hesitate to say, "Please tell me more about this", or, "that's not entirely clear to me", or, "You're getting into an area with which I am not familiar."

- o At the conclusion of the interview, thank the interviewee for his or her cooperation.

3. After the interview:

   a. Give yourself time to reflect on what was said during the interview. Write up your findings, observations, and preliminary conclusions as soon as possible. It is probably a good idea to maintain your own interview file to keep notes and subsequent write-ups. You can then refer to it along with other data when you complete the total write-up for your assigned criteria checklist items. Follow-up on data requests if they are slow in being honored.

   b. If it was apparent during the interview that there are problems which may impact on CSCSC compliance, note these problems on the activity and problem records and then discuss the problem with the team chief. If the team chief determines that there is a problem, he may get verification from other team members and will discuss the problem with the contractor. If the problem cannot be resolved expeditiously, it should be noted in the discrepancy log. The contractor will then be responsible for planning and taking corrective action to fix the discrepancy.

   c. It is not uncommon for two interviewers, on completion of a joint interview, to have two different perceptions of what was said and meant. These differences should be identified and resolved at the earliest possible opportunity. Good notes can do much to eliminate or resolve such differences.

IV. RECORDS OF ACTIVITIES AND PROBLEMS

Figures A8-1 and A8-2 illustrate suggested formats for documenting review activities. Such records should be completed by each team member daily to document their activities, to identify problems, and to establish the basis for writing the review report.

The activity record is designed to record interview proceedings, document reviews, record observations, and suggest systems refinements for contractor consideration, e.g., a suggestion for the contractor to review a system form because it contains redundant information, etc. The problem record is used to document problems identified on the activity record. The problem record may be used alone to highlight a problem in review process, such as undue rescheduling of interviews by interviewees or documentation requests not being honored.

Figure A8-1

ACTIVITY RECORD

TEAM MEMBER: DATE:

	YES	NO
PROBLEM:	___	___

(If Yes, Attach Problem Record)

PERSON(S) INTERVIEWED/DOCUMENT(S) REVIEWED:

SUBJECT:

FINDING & CONCLUSIONS

(ATTACH SUPPORTING DOCUMENTATION)

Figure A8-2

PROBLEM RECORD

TEAM MEMBER: DATE:

CRITERIA CATEGORY	PROBLEM SOURCE	PROBLEM MAGNITUDE
o Organization	o Interview	o Minor
o Planning and Budgeting	o Documentation	o Major
o Accounting	o Meeting	
o Analysis		
o Revisions		

PROBLEM DISCUSSION:

CONTRACTOR RESPONSE:

PROBLEM DISPOSITION: o Response Acceptable o Response Nonacceptable, (See Comments Below)

(ATTACH SUPPORTING DOCUMENTATION)

ATTACHMENT 9

SURVEILLANCE PLAN OUTLINE

(See paragraph III.C of this guide for discussion of factors to be considered when preparing a surveillance plan. Development of the plan may be coordinated with the contractor.)

I. GENERAL

A. Purpose

- o Provide detailed surveillance procedures
- o Accomplish systematic surveillance
- o Produce objective evidence of that surveillance
- o Address relationship to contract surveillance

B. Objective

- o To ensure that contractor's management control systems continue to meet the CSCSC requirements.

C. References

- o List all references.

D. Records

- o See paragraph III.F.1 of this guide for guidance on types of records to be maintained.

E. Reports

- o See paragraph III.F.2 of this guide
- o Include report subjects, distribution, and general content (format, if required).

II. RESPONSIBILITIES

A. General

- o See paragraph III.D of this guide.

B. Surveillance Monitor

- o See paragraph III.D.1. of this guide for typical surveillance monitor responsibilities.

C. Subsequent sections should include responsibilities of all participants in the surveillance effort. See paragraph III.C.1 of this guide.

III. GENERAL PROCEDURES

A. Planning

- o Periodic meetings of team (paragraph III.E.2.(a))
- o Activity planning (paragraph III.E.2.(a))
- o Sample selection (paragraph III.E.2.(d)(4)

B. Conduct of Surveillance

- o Refer to paragraphs (III.E)

IV. DETAILED PROCEDURES

- o Tailor to contractor's systems (Attachment 4, paragraph I).
- o Address each subsystem or surveillance area (Attachment 4, paragraphs II through VII).

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